

Department of State.

**CERTIFICATE OF AUTHORITY
OF
STRATIGRAPHIC GEOPHYSICAL, INC.**

I, PETE T. CENARRUSA, Secretary of State of the State of Idaho, hereby certify that
duplicate originals of an Application of **STRATIGRAPHIC GEOPHYSICAL, INC.**

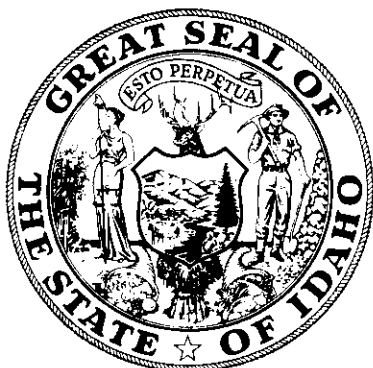
_____ for a Certificate of Authority to transact business in this State,
duly signed and verified pursuant to the provisions of the Idaho Business Corporation Act, have
been received in this office and are found to conform to law.

ACCORDINGLY and by virtue of the authority vested in me by law, I issue this Certificate of
Authority to **STRATIGRAPHIC GEOPHYSICAL, INC.**

to transact business in this State under the name **STRATIGRAPHIC
GEOPHYSICAL, INC.**

_____ and attach hereto a duplicate original of the Application
for such Certificate.

Dated _____ **June 18** , 19 **82** .



Pete T. Cenarrusa

SECRETARY OF STATE

Muriel F. Artisch
Corporation Clerk

APPLICATION FOR CERTIFICATE OF AUTHORITY

To the Secretary of State of Idaho.

Pursuant to Section 30-1-110, Idaho Code, the undersigned Corporation hereby applies for a Certificate of Authority to transact business in your State, and for that purpose submits the following statement:

- JUN 18 8 48 AM '82**
1. ~~SECRETARY OF STATE~~ Corporation is Stratigraphic Geophysical, Inc.
2. *The name which it shall use in Idaho is Stratigraphic Geophysical, Inc.
3. It is incorporated under the laws of Wyoming
4. The date of its incorporation is April 12, 1982 and the period of its duration is Perpetual
5. The address of its principal office in the state or country under the laws of which it is incorporated is c/o C.T. Corporation System, 1720 Carey Avenue, Cheyenne, Wyoming, 82001
6. The street address of its proposed registered office in Idaho is c/o C.T. Corporation System, 300 North 6th Street, Boise, Idaho 83701, and the name of its proposed registered agent in Idaho at that address is C.T. Corporation System
7. The purpose or purposes which it proposes to pursue in the transaction of business in Idaho are: Seismic exploration for oil and gas and all other lawful business.
8. The names and respective addresses of its directors and officers are:

Name	Office	Address
<u>Helmut Hofer</u>	<u>Director</u>	<u>505 4th Ave., S.W., Calgary, Canada, P2P0J8</u>
<u>Frank Stotz</u>	<u>Director</u>	<u>Suite 4-C, Brooks Towers, 1020 15th St., Denver, CO 80202</u>
<u>Leonard Brown</u>	<u>Sec.-Treas.</u>	<u>Suite 4-C, Brooks Towers, 1020 15th St., Denver, CO 80202</u>
	<u>President</u>	

9. The aggregate number of shares which it has authority to issue, itemized by classes, par value of shares, and shares without par value, is:

Number of Shares	Class	Par Value Per Share or Statement That Shares Are Without Par Value
<u>100,000</u>	<u>Common</u>	<u>No-par value</u>

(continued on reverse)

10. The aggregate number of its issued shares, itemized by classes, par value of shares, and shares without par value, is:

Number of Shares	Class	Par Value Per Share or Statement That Shares Are Without Par Value
<u>2,000</u>	<u>Common</u>	<u>No-par value</u>
_____	_____	_____
_____	_____	_____

11. The corporation accepts and shall comply with the provisions of the Constitution and the laws of the State of Idaho.

12. This Application is accompanied by a copy of its articles of incorporation and amendments thereto, duly authenticated by the proper officer of the state or country under the laws of which it is incorporated.

Dated April 30, 19 82.

Stratigraphic Geophysical, Inc.

By _____

Its _____ President

and _____

Its _____ Secretary

STATE OF COLORADO)
)ss:
COUNTY OF Arapahoe)

I, Judith A. Middleton, a notary public, do hereby certify that on this 30th day of April, 19 82, personally appeared before me D. L. Brown, who being by me first duly sworn, declared that he is the President of Stratigraphic Geophysical, Inc.

that he signed the foregoing document as President of the corporation and that the statements therein contained are true.

Judith A. Middleton
Notary Public

*Pursuant to section 30-1-108(b)(1), Idaho Code, if the corporation assumes a name other than its true name, this application must be accompanied by a resolution of the Board of Directors to that effect.



STATE OF WYOMING
Secretary of State

I hereby certify that this is a true
and complete copy of the docu-
ment as filed in this office.

Lynne L. Harrison
Secretary of State

By: *Gwendolyn A. Magee*

Date: *15 June 1982*

ARTICLES OF INCORPORATION

OF

STRATIGRAPHIC GEOPHYSICAL, INC.

FILED

APR 12 82 19 17 03

WYOMING
SECRETARY OF STATE

JUN 10 8 45 AM '82
SECRETARY OF STATE

The undersigned for the purpose of incorporating a corporation under the Wyoming Business Corporation Act, add at the following Articles of Incorporation for such corporation:

ARTICLE I

NAME OF CORPORATION

The name of the Corporation is STRATIGRAPHIC
GEOPHYSICAL, INC.

ARTICLE II

DURATION OF CORPORATION

The period of its duration is perpetual.

ARTICLE III

PURPOSE

The purpose for which the Corporation is being organized is the transaction of all lawful business for which Corporations may be incorporated under the Wyoming Business Corporation Act.

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SECRETARY OF STATE

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SECRETARY OF STATE

ARTICLE IV

CAPITAL

The aggregate number of shares the Corporation shall have authority to issue is One Hundred Thousand (100,000) shares of no-par common stock.

ARTICLE V

PRE-EMPTIVE RIGHTS

The shareholders shall not have pre-emptive rights to acquire additional authorized but unissued or treasury shares of the Corporation or securities convertible into shares or carrying stock purchase warrants or privileges, when and as authorized by the Corporation.

ARTICLE VI

ADOPTION AND AMENDMENT OF BY-LAWS

The initial By-laws of the Corporation shall be adopted by its Board of Directors. The power to alter or amend or repeal the By-laws or adopt new By-laws shall be vested in the Board of Directors, but the stockholders may also alter, amend or repeal the By-laws or adopt new By-laws. The By-laws may contain any provisions for the regulation and management of the affairs of the Corporation not inconsistent with law or the Articles of Incorporation.

ARTICLE VII

SHARE TRANSFER RESTRICTIONS

The Corporation shall have the authority to impose restrictions on the transfer of all or any part of the shares of the Corporation as it deems appropriate, either by amendment of the Articles of Incorporation, by resolution of the Board of Directors, by shareholder agreement, or otherwise.

ARTICLE VIII

REGISTERED OFFICE AND AGENT

The address of the initial registered office of the Corporation is c/o C T Corporation System, 1720 Carey Avenue, Cheyenne, Wyoming, 82001, and the name of its initial registered agent at such address is C T CORPORATION SYSTEM.

ARTICLE IX

DEALINGS OF OFFICERS AND DIRECTORS

In the absence of fraud, no contract or other transaction between this Corporation and any other corporation or any partnership or association shall be affected or invalidated by the fact that any director or officer of the Corporation is pecuniarily or otherwise

interested in or is a director, member or officer of such other corporation or of such firm, association or partnership or is a party to or is pecuniarily or otherwise interested in such contract or other transaction or in any way connected with any person or persons, firms, association, partnership or corporation pecuniarily or otherwise interested therein, provided that the existence and nature of any such interest, possession or connection of such director or officer shall be disclosed or shall have been known to the directors present at any meeting of the Board of Directors at which action on any such contract or transaction shall have been taken; any director may be counted in determining the existence of a quorum and may vote at any meeting of the Board of Directors of the Corporation for the purpose of authorizing any such contract or transaction with like force and effect as if he were not so interested, or were not a director, member or officer of such other corporation, firm, association, or partnership.

ARTICLE X

INDEMNIFICATION OF OFFICERS AND DIRECTORS

Each Director and each Officer (and his heirs, executors and administrators) shall be indemnified by the Corporation against expenses reasonably incurred by or imposed upon him

in connection with or arising out of any action, suit or proceeding in which he may be involved or to which he may be made a party by reason of his being or having been a Director or Officer of the Corporation, or at its request, of any other corporation of which it is a stockholder or creditor and from which he is not entitled to be indemnified (whether or not he continues to be a Director or Officer at the time of imposing or incurring such expenses), except in respect of matters as to which he shall be finally adjudged in such action, suit or proceeding to be liable for negligence or misconduct; or in the event of a settlement of any such action, suit or proceeding, indemnification shall be provided only in connection with such matters covered by the settlement as to which the Corporation is advised by counsel that the person to be indemnified did not commit a breach of duty. The foregoing right of indemnification shall not be exclusive of other rights to which he may be entitled.

ARTICLE XI

INITIAL DIRECTORS

The number of Directors constituting the initial Board of Directors is two (2), and the names and addresses of each person who is to serve as a Director until the first Annual Meeting of Shareholders or until their successors are elected

and qualified are:

<u>NAME</u>	<u>ADDRESS</u>
Frank Stotz	505 4th Avenue, S.W. Calgary, Alberta Canada PZPOJ8
Helmut Hofer	505 4th Avenue, S.W. Calgary, Alberta Canada PZPOJ8

ARTICLE XII

INCORPORATOR

The name and address of the Incorporator is:

<u>NAME</u>	<u>ADDRESS</u>
Douglas N. Doig	309 Inverness Way South Englewood, Colorado 80112

Dated at Englewood, Colorado,
this 31 day of March, 1987.

Douglas N. Doig

Douglas N. Doig
Incorporator

STATE OF COLORADO)
) ss.
COUNTY OF ARAPAHOE)

I, LEONARD E. GORDON, a Notary Public,
hereby certify that on the 21st day of March,
1982, personally appeared Douglas N. Doig, who being by me first duly sworn,
severally declared that he is the person who signed the
foregoing document as Incorporator, and the the
statements therein contained are true.

IN WITNESS WHEREOF, I have hereunto set my hand
and seal this 21st day of March,
1982.

My commission expires: August 14, 1985.

Leonard E. Gordon
Notary Public

22006 Gordon
Golden, CO 80401