

PERMIT NO.: <b>97-0046</b>	
SHOT HOLE OPERATIONS: <b>YES</b>	*NON-EXPLOSIVE OPERATIONS:

**SECTION 1**

GEOPHYSICAL CONTRACTOR: <b>Quantum Geophysical, Inc.</b>	
PROJECT NAME AND NUMBER: <b>Beaver Creek</b>	COUNTY(S): <b>Golden Valley</b>
TOWNSHIP(S): <b>T 143 &amp; 144 North</b>	RANGE(S): <b>Ranges 103 &amp; 104 West</b>
PERMITTED BY: <b>Bruce Fulker Quantum Geo / Mike Linden Rocky Mtn Permit</b>	
DATE COMMENCED: <b>09-21-2000</b>	DATE COMPLETED: <b>10-12-2000</b>

**SECTION 2**

FIRST S.P. #:	LAST S.P. #:
LOADED HOLES (UNDETONATED SHOT POINTS) <b>(14) see attached exhibit "A"</b>	
S.P. #'s:	<b>14</b>
CHARGE SIZE::	<b>5#</b>
DEPTH:	<b>60'</b>
REASONS HOLES WERE NOT SHOT:  <b>528131-(bad cap)</b> <b>537115,552155 (plowed over / could not find leads)</b> <b>531128,531129,531130,582118,588120,588175,597176,630179,618203,618204,621198 (cap leads cut / holes staked inside allowable distances)</b>	

**SECTION 3**

FLOWING HOLES S.P.#'s	<b>None</b>
PROCEDURE FOR PLUGGING FLOWING HOLES:	<b>N/A</b>

Include a 7.5 minute USGS topographic quadrangle map or a computer generated post-plot facsimile of the approximate scale displaying each individual shot hole, SP #, line #, and legal location.

\*Non-Explosive Operations - Complete Section 1 and Affidavit.

### AFFIDAVIT OF COMPLETION (GEOPHYSICAL CONTRACTOR)

STATE OF ~~NORTH DAKOTA~~ TEXAS)


)

COUNTY OF Harris )

Before me, \_\_\_\_\_, a Notary Public in and for the said County and State, this day personally appeared Bruce A Fulker who being first duly sworn, deposes and says that (s)he is employed by \_\_\_\_\_ Quantum Geophysical, Inc., that (s)he has read North Dakota Century Code Section 38-08.1, that the foregoing seismic project has been completed in accordance with North Dakota Administrative Code Rule 43-02-12 and that the statements on the reverse side of this document are true.

Bruce A Fulker  
Geophysical Contractor Representative

Subscribed in my presence and sworn before me this 7<sup>TH</sup> day of Nov. 2000.

Notary Public Kenny Fisher  


My Commission Expires FEB. 8<sup>TH</sup> 2003.

**Attachment to Seismic Completion Report  
Beaver Creek Prospect  
Permit # 97-0046**

**Misfires: 528131**

**Cap leads cut: 531128  
531129  
531130  
582118  
588120  
588175  
597176  
630179  
618203  
618204  
621198**

**Holes plowed under: 537115  
552155**

**Blowouts: 588192**

**Total Holes Drilled: 1306 (all 60')**

**AFFIDAVIT OF PLUGGING (HOLE PLUGGER)**

Montana  
STATE OF NORTH DAKOTA )  
COUNTY OF Richland )

Before me, Douglas A Lang, a Notary Public in and for the said  
County and State, this day personally appeared Wayne Swanson  
who being first duly sworn, deposes and says that (s)he is employed by  
Swanson Drilling, Inc., that (s)he has read North Dakota  
Century Code Section 38-08.1 and that the foregoing seismic project has been plugged in  
accordance with North Dakota Administrative Code Rule 43-02-12 and that the statements on  
the attached documents are true.

Wayne Swanson  
Hole Plugger Representative

Subscribed in my presence and sworn before me this 30<sup>th</sup> day of October, 2000.

Notary Public Douglas A Lang

NOTARY PUBLIC for the State of Montana  
Residing at Sidney, Montana  
My Commission Expires April 19,

My Commission Expires 4-19-2003

**AFFIDAVIT OF PLUGGING (HOLE PLUGGER)**

STATE OF ~~NORTH DAKOTA~~ )

COUNTY OF Richland )

Before me, Douglas A Lang, a Notary Public in and for the said County and State, this day personally appeared Terry Williams who being first duly sworn, deposes and says that (s)he is employed by Wilderness Exploration, Inc., that (s)he has read North Dakota Century Code Section 38-08.1 and that the foregoing seismic project has been plugged in accordance with North Dakota Administrative Code Rule 43-02-12 and that the statements on the attached documents are true.

Terry Williams  
Hole Plugger Representative

Subscribed in my presence and sworn before me this 13<sup>th</sup> day of October, 2000.

Notary Public Douglas A Lang

My Commission Expires 4-19-2003



TO: Dave Hunsiden  
DEPT: MDIC  
CO: \_\_\_\_\_  
FAX: 328-8022

HP FAX  
FROM: Barb Plum  
DATE: 3/10/00

**Quantum Geophysical, Inc.**  
**a Subsidiary of Geokinetics Inc.**

**SEISMOGRAPH PERMIT**

North Dakota State Land Dept

Prospect: Beaver Creek  
Permit # 2

**QUANTUM GEOPHYSICAL, INC.** is requesting permission to conduct geophysical operations across property owned and/or leased by you in Golden Valley County North Dakota, and is further described as follows:

**Township 144 North Range 104 West Section 36 All 40 Net Acres**

**SURFACE OWNER** State of ND  
**MINERAL OWNER** State of ND  
**MINERAL LESSEE** Open

**SURFACE TENANT/LESSEE**  
Raymond Tescher  
15470 Tescher Rd.  
Beach, ND 58621  
(701) 872-4439

**CONDITIONS:**

**Client: Equity Oil Company**  
**\$3.00 per acre to be split with surface lessee** (*1/2 payment to be paid directly to surface lessee*)  
**Contact lessee prior to Entry**  
**3 D Shot hole 5 # @ 60'**

Our operations will be conducted in a prudent and careful manner. We will indemnify you from all claims and damages that might result from our work by virtue of your permission granted herein.

We would appreciate your signature on this agreement, indicating your consent and permission to enter on said acreage/minerals for this seismic survey.

Approval Granted this 8<sup>th</sup> day of March, 2000.

Social Security or Tax ID 45-6002470

By Heidi Farn, District Manager

Address PO Box 5523  
Bismarck, ND 58506-5523

Telephone # (701) 328-2804

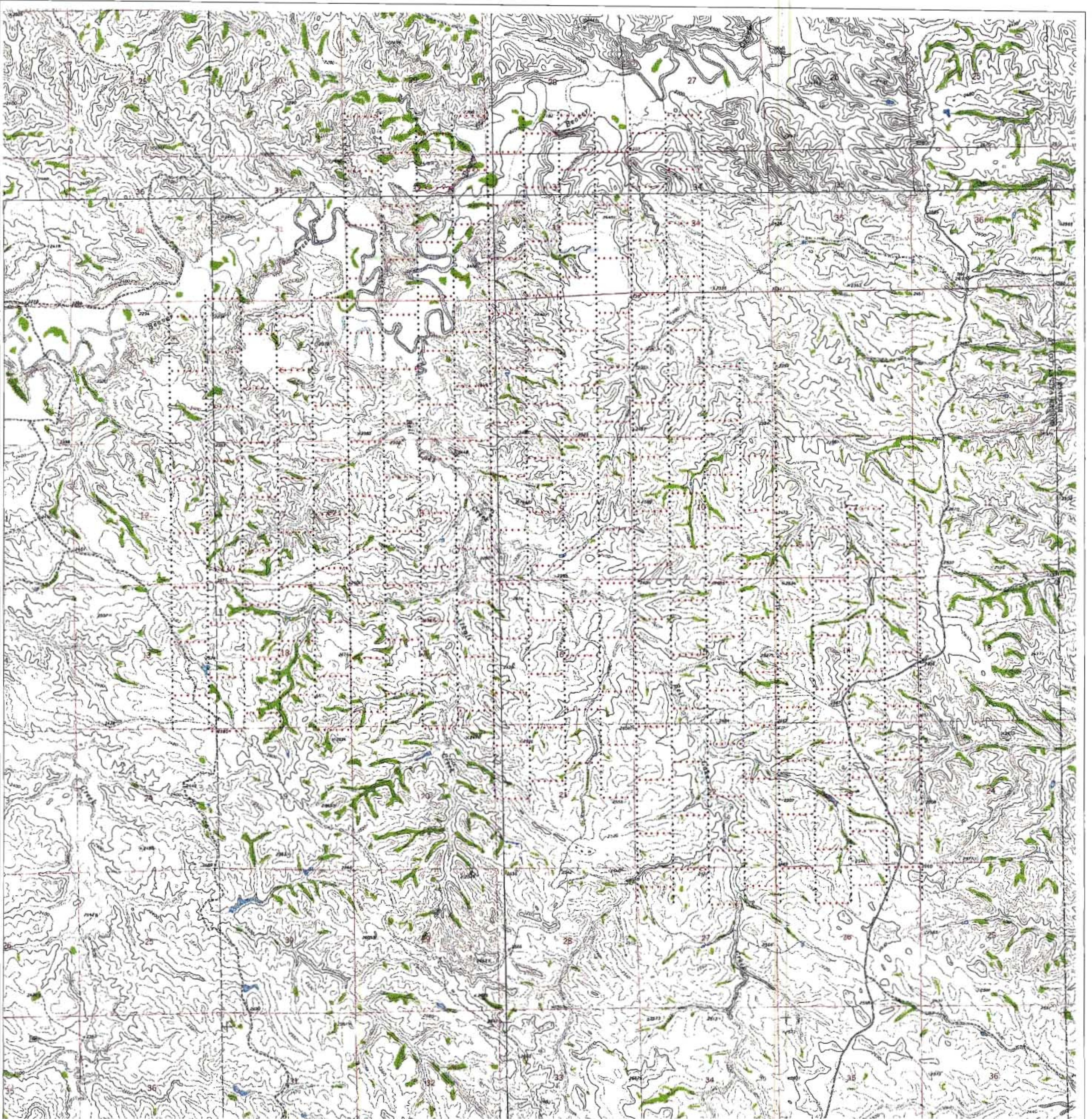
Permit Agent Bruce Fulker

Telephone: (713) 850-9799

*Permit valid for one (1) year from approval date.*

On any correspondence, please refer to the Prospect and Permit No. Our home office address is **8401 Westheimer, Suite 150, Houston, Texas 77063. The telephone number is (713) 850-9799.**





CLIENT:  
**EQUITY**

CONTRACTOR:



PERMITTING, SURVEYING, AND G.I.S. DONE BY:



ERICKSON CONTRACT SURVEYING

80 374 STREET SW SPOKANE, WY 83400PH: 307-404-0020 FAX: 406-482-6400 E-MAIL: info@ecs.com

**HAZARD REGISTRAR**

ROUGH TERRAIN  
 DEEP WASHES AND UNDERMINED SNK HOLES  
 TICKS, BULL SNAKES, RATTLESNAKES  
 LOW OVERHEAD POWER LINES  
 WILDLIFE ON HIGHWAYS  
 NARROW AND VERY DEEP WASHES IN TALL GRASS  
 FIRE HAZARD IN VERY DRY  
 NARROW ROADS - STAY RIGHT  
 35 MPH SPEED LIMIT ON PROSPECT  
 SLOW DOWN NEAR FARM YARDS  
 PIPELINES AND PIPERISERS  
 HIDDEN INTERSECTIONS AND BLIND CORNERS  
 ROCKS IN TALL GRASS, DRIVE SLOW WITH QUADS  
 AND TRUCKS  
 REMEMBER YOUR ORANGE  
 KNOW SAFETY NO PAIN  
 NO SAFETY KNOW PAIN

<b>BEAVER CREEK 3-D PREPLOT</b>		North America Datum 1927
GOLDEN VALLEY CO., N.D.		North Dakota South Zone
TOWNSHIP 143N, 144N		
RANGE 103W, 104W		
SOURCE PT INTERVAL: 220'	RECEIVER PT INTERVAL: 220'	TOTAL SOURCE PTS: 1332
		TOTAL RECEIVER PTS: 2086
		AREA (SQUARE MILES): +/- 20 SQ. MI.
<b>SOURCE PARAMETERS</b>		SOURCE LINE INTERVAL: 1980' x 660'
DYNAMITE		RECEIVER LINE INTERVAL: 1320'
SHEET 1 OF 1	SCALE: 1:24000	SOURCE LINE AZIMUTH: 90d 00' 02"
JAN. 16, 2000	1" = 2000'	RECEIVER LINE AZIMUTH: 0d 00' 00"

DRAWN BY: SHAWN ERICKSON / CHECKED BY: SHAWN ERICKSON  
 ECS IS NOT LIABLE FOR UNDISCOVERED UTILITIES & ALL OTHER FEATURES IN THE SURVEY AREA APPROXIMATE ONLY.  
 IF A SOURCE POINT IS FOUND TO BE A HAZARD, IT SHALL BE REPORTED TO THE APPROPRIATE AGENCIES AND THE CLIENT.  
 ANY SOURCE POINTS SHOWN ON THIS MAP THAT ARE NOT WATERWELLS OR SPRINGS HAVE BEEN MADE BY THE CLIENT.  
 THEREFORE, ECS IS NOT RESPONSIBLE FOR ANY SOURCE POINTS SHOWN ON THIS MAP THAT ARE NOT WATERWELLS OR SPRINGS.

**LEGEND**

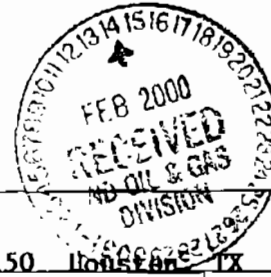
	GATE		COUNTY ROAD NUMBER
	FENCE		HIGHWAY NUMBER
	STOCK DAM		IMPROVED GRAVEL ROAD
	WATERWAY		UNIMPROVED GRAVEL ROAD
	HOUSES / OUTBUILDINGS		TRAIL / 2-TRACK
	OVERHEAD POWER LINES		PAVED ROAD
	UNDERGROUND POWER LINES		RECEIVER POINTS
	PIPE LINES W/ 100' BUFFER		POSTPLOT SOURCE POINTS
	RAILROAD TRACKS		PREPLOT SOURCE POINTS
	OIL WELLS		SPRINGS
	DRY HOLE		WATER WELLS - 330'
	HAZARDS		SPRINGS - 660'

970046





**GEOPHYSICAL EXPLORATION PERMIT**  
**INDUSTRIAL COMMISSION OF NORTH DAKOTA**  
**OIL AND GAS DIVISION**  
 SFN 51459 (11-97)



600 E BOULEVARD AVE  
 BISMARCK, ND 58505

1) a. Company: <b>Quantum Geophysical, Inc.</b>	Address: <b>8401 Westheimer, Ste 150 Houston, TX 77063</b>	
Contact: <b>Bruce Fulker</b>	Telephone: <b>(713) 850-9799</b>	Fax: <b>(713) 850-7783</b>
Surety Company: <b>Bank of North Dakota</b>	Bond Amount: <b>\$50,000.00</b>	Bond Number: <b>GEO 300</b>
2) a. Subcontractor(s): <b>Wilderness Exploration</b>	Address: <b>PO Box 91 Sidney, MT 59270</b>	Telephone: <b>(406) 482-1219</b>
b. Subcontractor(s):	Address:	Telephone:
c. Subcontractor(s):	Address:	Telephone:
3) Party Manager: <b>Billy Flippo</b>	Address:	Telephone: <b>Cell: (713) 824-6256</b>
4) Project Name or Line Numbers: <b>Beaver Creek</b>		
5) Exploration Method (Shot Hole, Non-Explosive, 2D, 3D): <b>3 D shot hole survey</b>		
6) Approximate Drilling Start Date: <b>April 15, 2000</b>		Approximate Completion Date: <b>May 10, 2000</b>

**THE COMMISSION MUST BE NOTIFIED AT LEAST 24 HOURS IN ADVANCE OF COMMENCEMENT OF DRILL/PLUG OPERATIONS**

7) Location of Proposed Project - County <b>Golden Valley County</b>								
Section(s), Township(s) & Range(s)	Sec. 32,33,34	T 144 N	R 103 W					
	Sec. 1,12,13	T 143 N	R 104 W					
	Sec. 3,4,5,6,7,8,9,10	T 143 N	R 103 W					
	Sec. 11,14,15,16,17,18,21,22,23,27,28	T 143 N	R 103 W					
B) Size of Hole	Amt. of Charge	Depth	Shots per Mi.(sq.mi.)	No. of Mi. (sq. mi.)	Identifying Marks Used on Nonmetallic Plug			
3"	5 #	60'	64	20	Geophysical ID	a. Plugger ID	b. Plugger ID	c. Plugger ID
					OG			
9) Anticipated special drilling and plugging procedures? <b>ND Century Code Chapter 38-08.1</b>					<b>All holes will be drilled and plugged as per 43-02-12-10 Revised Drilling &amp; Plugging Requirements</b>			
10) Enclose a pre-plot map with proposed location of seismic program lines and powder mag.								

Signed: <i>B. A. Hall</i>	Title: <b>Permit Supervisor</b>	Date: <b>01-17-00</b>
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(This space for State office use)		Conditions of Approval if any:
Permit No.: <b>97-6046</b>	Approval Date: <b>2/14/00</b>	<i>All City surface plugs w/ #46 and continue stamp. Notify surface owner, county and state representative Ken Martin (701-327-7436) prior to drilling. Any variance must be forwarded upon request. David Hall 2/14/00</i>
Approved By: <i>David C. Hall</i>		
Title: <i>Geophysical Regulations Enforcement</i>		
County Approval Sent: <i>Golden Valley 2/14/00</i>		

\*See Instructions On Reverse Side



NORTH DAKOTA INDUSTRIAL COMMISSION

**OIL AND GAS DIVISION**

Lynn D. Helms  
DIRECTOR

<http://explorer.ndic.state.nd.us>

Bruce E. Hicks  
ASSISTANT DIRECTOR

February 14, 2000

Bruce Fulker  
Quantum Geophysical  
5555 San Felope, Ste. 550  
Houston TX 77478

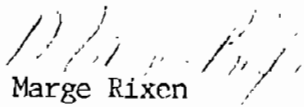
RE: GEOPHYSICAL EXPLORATION PERMIT NO 97-0046  
BEAVER CREEK  
GOLDEN VALLEY COUNTY

Dear Mr. Fulker:

This letter will verify the approval of the above-captioned Geophysical Permit effective February 14, 2000.

Please feel free to contact Mr. David Hvinden, Geophysical Regulations Supervisor if you should have any questions.

Sincerely,

  
Marge Rixen  
Legal Assistant

/mr

Enc.



NORTH DAKOTA INDUSTRIAL COMMISSION

OIL AND GAS DIVISION

Lynn D. Helms  
DIRECTOR

<http://explorer.ndic.state.nd.us>

Bruce E. Hicks  
ASSISTANT DIRECTOR

Ms. Judy Sutherland  
Golden Valley County Tax Director  
P.O. Box 67  
Beach, N.D. 58621

*See Finnemore Xerox  
Tax Director*

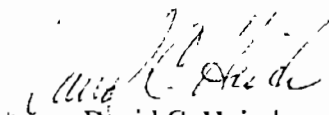
RE: Geophysical Exploration  
Permit # 97-0046

Dear Ms. Sutherland:

Pursuant to Section 38-08.1-04.2 of the North Dakota Century Code, please be advised that Quantum Geophysical, Inc. was issued the above captioned permit on February 14, 2000 and will remain in effect for a period of one year.

Should you have any questions, please contact our office.

Sincerely,



David C. Hvinden  
Geophysical Regulation Supervisor

DCH/dh