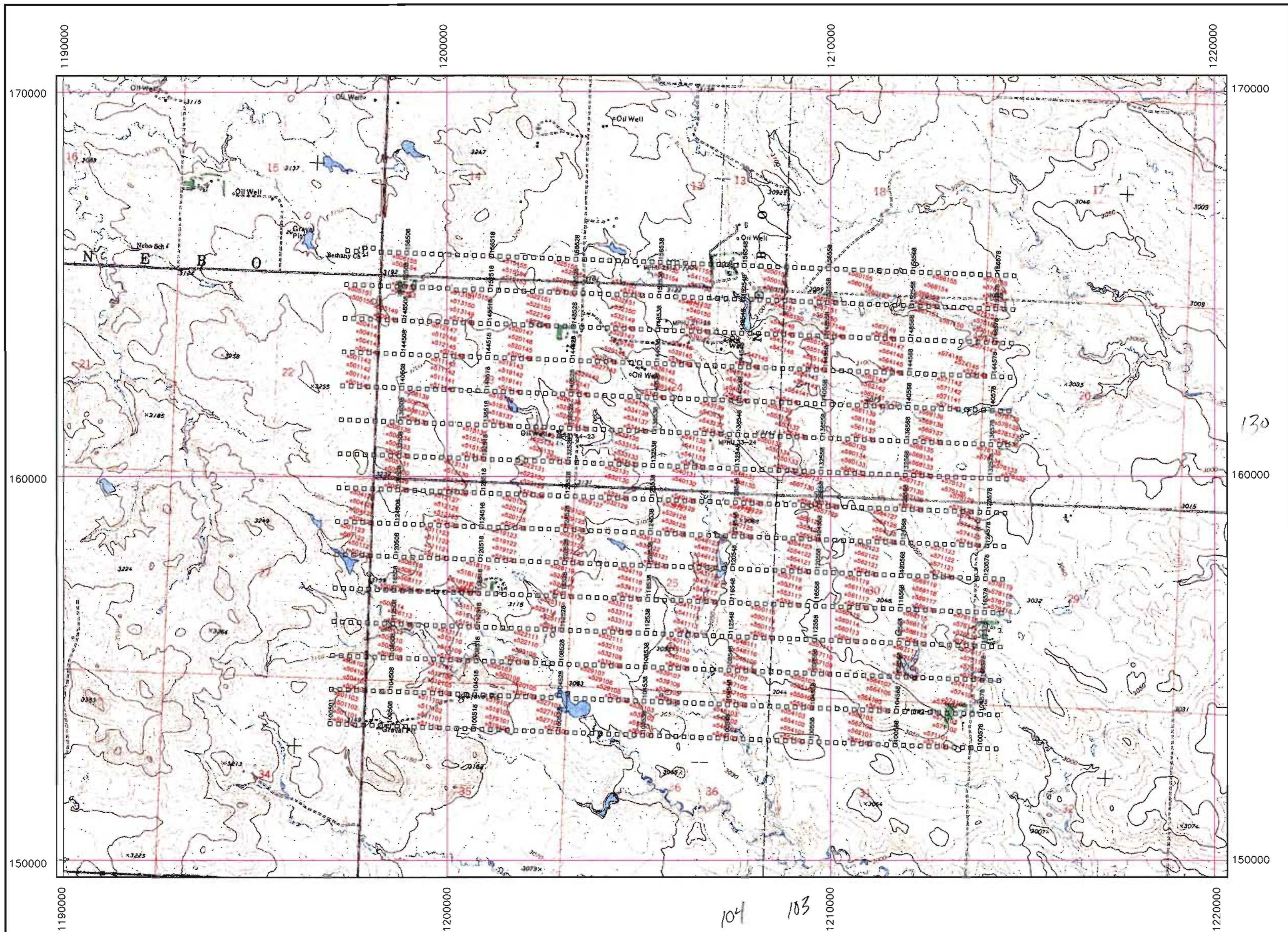


1" = 2000'

97-0019
SE. Medicine Pale Hills





SE MEDICINE POLE HILLS 3D

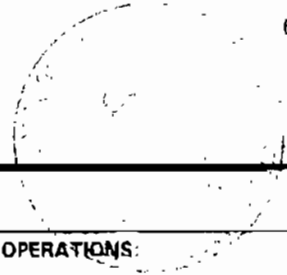
Datum:	NAD27	State:	North Dakota
Map Projection:	Lambert, ND S	County:	Bowman
Spheroid:	clarke 1866	Date:	11/21/97
Units:	U.S. Feet	Scale:	1" = 2000'
Receiver line interval:	880'	Source line interval:	
Receiver interval:	220'	Source interval:	220'
Shot/Receiver offset:	110' X 110'	Pattern:	Variable Brick

970019



SEISMIC COMPLETION REPORT
 INDUSTRIAL COMMISSION OF NORTH DAKOTA
 OIL AND GAS DIVISION
 SFN 51456 (11-97)

600 E BOULEVARD AVE
 BISMARCK, ND 58505



PERMIT NO.: 97-0019	
SHOT HOLE OPERATIONS: 3 D 60' Hole 10#	*NON-EXPLOSIVE OPERATIONS:

SECTION 1

GEOPHYSICAL CONTRACTOR: Quantum Geophysical Inc.		5555 San Felipe Ste 550 Houston, Tx 77056	
PROJECT NAME AND NUMBER: SE Medicine Pole Hills		COUNTY(S): Bowman	
TOWNSHIP(S): 130 North		RANGE(S): 103 and 104 West	
PERMITTED BY: R J Mowrey			
DATE COMMENCED: 11-7-97		DATE COMPLETED: 12-10-97	

SECTION 2

FIRST S.P. #: 501100						LAST S.P. #: 576155					
LOADED HOLES (UNDETONATED SHOT POINTS) NONE											
S.P. #'s:											
CHARGE SIZE::											
DEPTH:											
REASONS HOLES WERE NOT SHOT: N/A											

SECTION 3

FLOWING HOLES S.P.#'s NONE	
PROCEDURE FOR PLUGGING FLOWING HOLES:	
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)
STATE OF TEXAS)
COUNTY OF Harris)

Before me, Lisa Mendoza, a Notary Public in and for the said County and State, this day personally appeared Bruce 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 Fulker
Geophysical Contractor Representative

Subscribed in my presence and sworn before me this 30 day of December, 1997.

Notary Public Lisa Mendoza
LISA MENDOZA

My Commission Expires 7-1-98

PERMIT NUMBER: 19

AFFIDAVIT OF PLUGGING (HOLE PLUGGER)



STATE OF Montana)
NORTH DAKOTA)
COUNTY OF Richland)

Before me, Douglas A. Jang, 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 23rd day of November, 98.

Notary Public Douglas A. Jang

My Commission Expires 4-19-99

NOTARY PUBLIC for the State of Montana
My Commission Expires April 19, 1999

1) a. Company - Address
Quantum Geophysical, Inc. 5555 San Felipe Ste 780 Houston, Texas 77056
 Contact, Telephone, Fax
Bruce Fulker 713-850-7600 Fax 713-850-7330

Surety Company Bank of North Dakota Bond Amount \$50,000 Bond Number GE0300

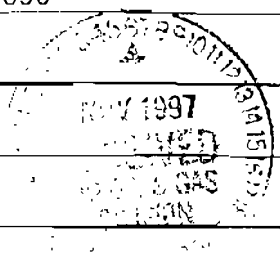
2) a. Subcontractor(s), Address, Telephone
Wilderness Drilling Box 91 Sidney, MT 59270 (406)482-1219
 b. Subcontractor(s), Address, Telephone
Nistler Drilling Box 856 Roundup, MT 59072 (406)323-2705
 c. Subcontractor(s), Address, Telephone
Mowrey Surveying Box 404 Lander, WY 82520 (307)856-8531

3) Party Manager, Address, Telephone
Billy Flippo 5555 San Felipe Ste 780 Houston, TX 77056 (713)850-7600

4) Project Name or Line Numbers
SE Medicine Hills Prospect

5) Exploration Method (Shot hole, Non-Explosive, 2D, 3D)
Shot Hole 3 D

6) Approx. Date Work Will Start 11-5-97 Approx. Date Work Completion 12-15-97



MUST NOTIFY THE COMMISSION AT LEAST 24 HOURS IN ADVANCE OF COMMENCEMENT OF DRILL/PLUG OPERATIONS

7) Location of Proposed Project
 County(s) Bowman
 Section(s), Township(s) & Range(s)
 Sec. 19, 20, 29, 30, 31, 32 T 130 North R 103 West
 Sec. 23, 24, 25, 26, 35, 36 T 130 North R 104 West
 Sec. _____ T _____ R _____
 Sec. _____ T _____ R _____

8) Size of Hole	Amount of Charge	Depth	Shots Per Mile (sq.mi.)	Number of Miles (sq.mi.)	Identifying Marks Used on Non-metallic Plug			
					Geophysical ID	a. Plugger ID	b. Plugger ID	c. Plugger ID
4.5"	10#	60'	84	6	QU	W	N	

9) a. Proposed hole drilling and plugging procedure.
All holes will be drilled and plugged as per 43-02-12-10 Revised Drilling and Plugging Requirements ND Century Code Chapter 38-08.1 (Revised 9-11-97)

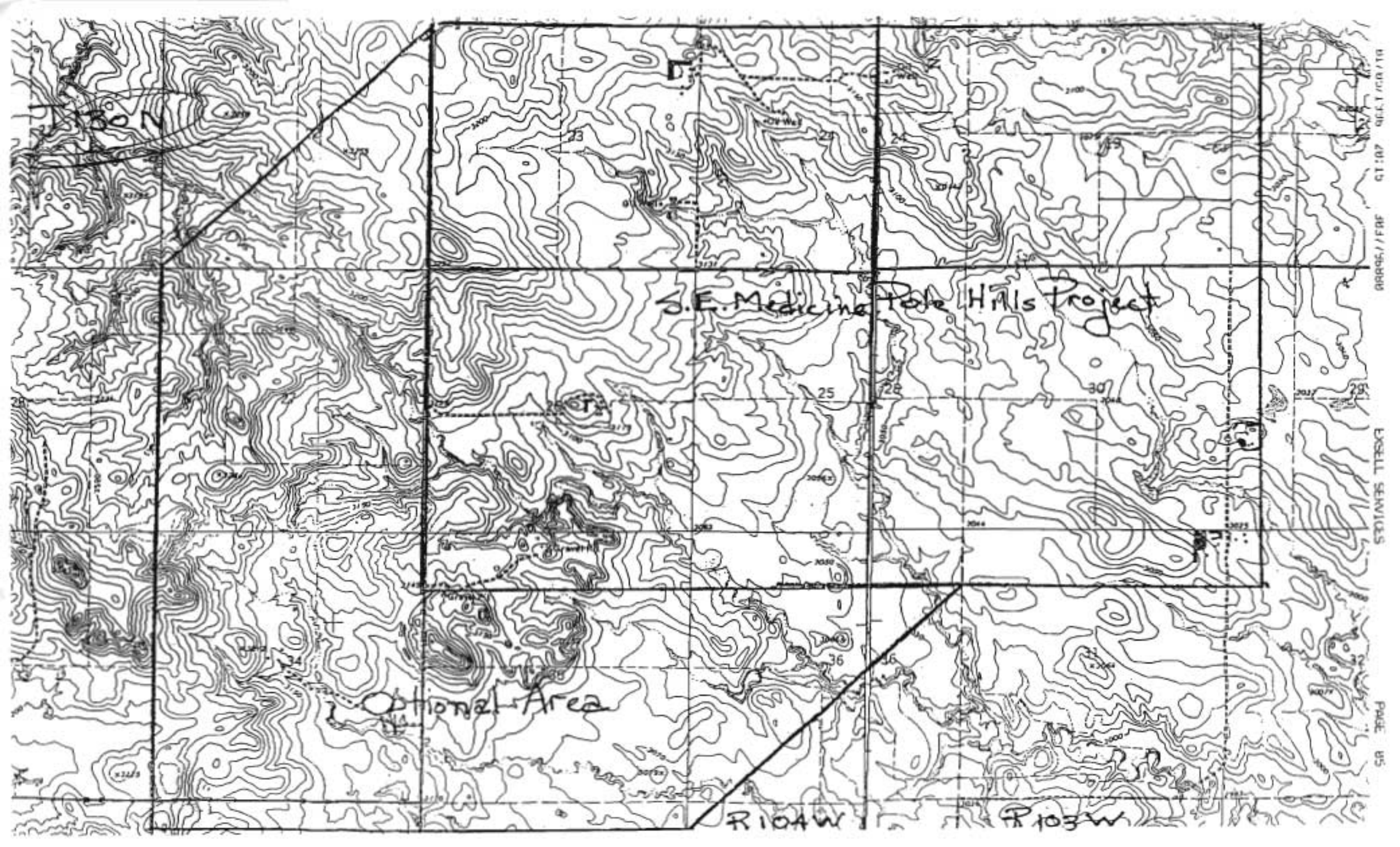
10) Enclose a Map with proposed line on it.

SIGNED Bruce Fulker TITLE Permit Agent DATE 10-30-97
 Bruce Fulker

(This space for State office use)

PERMIT NO. 97-0019 DATE 11/6/97
 APPROVAL DATE 11-6-97
 APPROVED BY Geophysical Regulation Supervisor
 Approvals sent 1 11/6 19 97

CONDITIONS OF APPROVAL IF ANY:



S.E. Medicine Lake Hills Project

Optional Area

R 104W

R 103W

NORTH DAKOTA INDUSTRIAL COMMISSION

OIL AND GAS DIVISION

Wesley D. Norton
DIRECTOR

F.E. Wilborn
ASSISTANT DIRECTOR

November 6, 1997

Bruce Fulker
Quantum Geophysical, Inc.
5555 San Felipe, Ste. 780
Houston, TX 77056

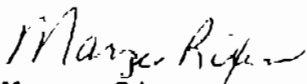
**RE: GEOPHYSICAL EXPLORATION PERMIT NO. 97-0019
SE MEDICINE HILLS PROSPECT**

Dear Mr. Fulker:

This letter will verify the approval of the above-captioned Geophysical Permit effective November 6, 1997.

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

Sincerely,


Marge Rixen
Legal Assistant

/mr

NORTH DAKOTA INDUSTRIAL COMMISSION

OIL AND GAS DIVISION

Wesley D. Norton
DIRECTOR

F.E. Wilborn
ASSISTANT DIRECTOR

November 6, 1997

The Honorable Rory Teigen
Bowman County Sheriff
P.O. Box 439
Bowman, ND 58623

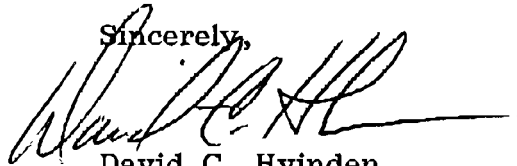
RE: Geophysical Exploration
Permit #97-0019

Dear Sheriff Teigen:

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 November 6, 1997 and will remain in effect for a period of one year.

Should you have any question, please contact our office.

Sincerely,



David C. Hvinden
Geophysical Regulation Supervisor

DCH/dh