
Quantum Geophysical, Inc.
 a Subsidiary of Cookinetics Inc.

FLYING J OIL & GAS INC
LITTLE KNIFE 3D

State: North Dakota	County: Dunn, Billings, McKenzie
Datum: NAD27	Township: T144N, T145N
Map Projection: Lambert, ND S	Range: R20W, R21W
Spheroid: Clarke 1866	Date: 06/25/98
Units: U.S. Feet	Scale: 1" = 2000'
Receiver line interval: 1760'	Source line interval: 1980'
Receiver interval: 220'	Source interval: 220'
Shot/Receiver offset: 110' x 110'	Pattern: Triple Brick



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.: 97-0038	
SHOT HOLE OPERATIONS: Shot Hole	*NON-EXPLOSIVE OPERATIONS*

SECTION 1

GEOPHYSICAL CONTRACTOR: Quantum Geophysical, Inc		5555 San Felipe Ste 550 Houston, Texas 77056	
PROJECT NAME AND NUMBER: Little Knife 3-D		COUNTY(S): McKenzie, Billings, Dunn	
TOWNSHIP(S): 144-145 North		RANGE(S): 97-98 West	
PERMITTED BY: L.R. Smith		Sidney, MT	
DATE COMMENCED: 8-10-98		DATE COMPLETED: 9-21-98	

SECTION 2

FIRST S.P. #: 502-285						LAST S.P. #: 667-272						
LOADED HOLES (UNDETONATED SHOT POINTS)												
S.P. #'s:	568106	577103	586126	616137	613130	619123	562137	553140	525113	532155	631179	547190
CHARGE SIZE::	10#	10#	10#	5#	10#	10#	10#	10#	10#	10#	10#	5#
DEPTH:	60'	60'	60'	30'	60'	60'	60'	60'	60'	60'	60'	60'
REASONS HOLES WERE NOT SHOT:												
BAD CAPS						S.P. #'s	538363	616235	631246	664261	559300	595348
						Charge Size:	10#	10#	10#	10#	10#	10#
						Depth:	60'	60'	60'	60'	60'	60'

SECTION 3

FLOWING HOLES S.P.#'s	**NONE**
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PROCEDURE FOR PLUGGING FLOWING HOLES:	**N/A**
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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)

TEXAS

STATE OF ~~NORTH DAKOTA~~)

)

COUNTY OF Harris)

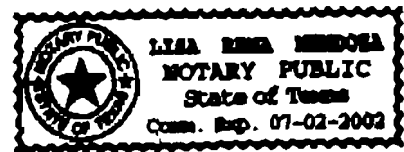
Before me, Lisa Rena Mendoza, a Notary Public in and for the said County and State, this day personally appeared Bruce Fulker who being first duly sworn, deposes and says that (s)he is employed by Quantum Geophysical, Inc., that (s)he has read North Dakota Century Code Section 38-08.1, that the foregoing 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.

BV [Signature]
Geophysical Contractor Representative

Subscribed in my presence and sworn before me this 15th day of October, 1998.

Notary Public [Signature: Lisa Rena Mendoza]

My Commission Expires 07-02-2002



AFFIDAVIT OF PLUGGING (HOLE PLUGGER)



STATE OF NORTH DAKOTA)

COUNTY OF Bellingham, Dunn & Kidzie

Before me, Jon M. Cherryfield, a Notary Public in and for the said County and State, this day personally appeared Joyce Day who being first duly sworn, deposes and says that (s)he is employed by Burksten, 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.

Joyce Day
Hole Plugger Representative

Subscribed in my presence and sworn before me this 3rd day of October, 98.

Notary Public Jon M. Cherryfield

My Commission Expires 6-26-99



SUNDRY NOTICE
INDUSTRIAL COMMISSION OF NORTH DAKOTA
OIL AND GAS DIVISION
 SFN 51468 (11-97)

PERMIT # 204
 800 E BOULEVARD AVE
 BISMARCK, ND 58505

Project Name

LITTLE KNIFE 3-D -- FLYING J

County

BILLINGS, DUNN, MCKENZIE CO'S., ND

Supplemental Information:

THIS IS THE FOLLOW-UP REPORT FOR BUCKSKIN, PERMIT # 038, LISTING THE SHOTPOINT NUMBERS WITH BAD CAPS, THOSE BEING ONLY 18, 568106, 577103, 586126, 616137, 613130, 619123, 562137, 553140, 525113, 532155, 631179, 547190, 616235, 631246, 664261, 559300, 595348, & 538363. THERE WAS ALSO AN ADDITIONAL BLOWOUT REPORTED-667250.

Company:

Address:

City:

State:

Zip Code:

Date Received

By:

Date:

By:

Title:

Telephone Number

Title:

FOR OFFICE USE ONLY

PERMIT NUMBER: 97-0038

AFFIDAVIT OF PLUGGING (HOLE PLUGGER)

BUCKSKIN?

STATE OF NORTH DAKOTA)
)
COUNTY OF _____)



Before me, _____, a Notary Public in and for the said County and State, this day personally appeared _____ who being first duly sworn, deposes and says that (s)he is employed by _____, 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.

[Signature]
Hole Plugger Representative

Subscribed in my presence and sworn before me this 25th day of Sept, 1998.

Notary Public [Signature]

My Commission Expires 6-26-99



SUNDRY NOTICE
INDUSTRIAL COMMISSION OF NORTH DAKOTA
OIL AND GAS DIVISION
 SFN 51458 (11-97)

PERMIT # 038
 800 B BOULEVARD AVE
 BISMARCK, ND 58506

Project Name: LITTLE KNIFE 3-D -- FLYING J

County: BILLINGS, DUNN, & MCKENZIE CO'S., ND

Supplemental Information:
 BUCKSKIN STARTED PLUGGING HOLES ON 8-10-98 AND FINISHED PLUGGING ON 9-11-98. BUCKSKIN PLUGGED 2473 HOLES AND USED 7405 BAGS OF BENTONITE. BLOWOUTS ON SHOTPOINT NUMBERS 535133, 541132, 532130, 520124, 601124, & 601118 HAD NO PROBLEMS AND THERE WERE NO BAGS OF BENTONITE USED. THERE WERE 22 BAD CAPS, 10 OF WHICH ARE REDRILLS, HOWEVER ALL INFORMATION HAS NOT BEEN TURNED IN. THEREFORE, WE WILL SEND A FOLLOW-UP LETTER IN THE NEAR FUTURE.

Company:		
Address:		
City:	State:	Zip Code:
By:	Date:	
Title:	Telephone Number:	

FOR OFFICE USE ONLY

Date Received
By
Title

038

PERMIT NUMBER: M

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 Dorothy 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.

Dorothy Swanson
Hole Plugger Representative

Subscribed in my presence and sworn before me this 29th day of September, 98.

Notary Public Douglas A Lang

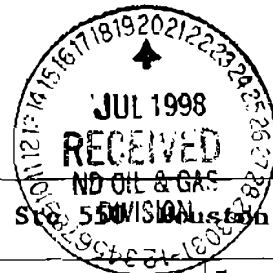
My Commission Expires 4-19-99

NOTARY PUBLIC for the State of Montana
St. Mentana
Commission Expires April 19, 1999



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: QUANTUM GEOPHYSICAL		Address: 5555 San Felipe St, Houston, TX 77478	
Contact: Bruce Fulker		Telephone: (713) 850-9799	Fax: (713) 850-7783
Surety Company: Bank of North Dakota		Bond Amount: \$50,000.00	Bond Number: GEO300
2) a. Subcontractor(s): TCS Drilling		Address: Box 574 Sidney, MT 59270	Telephone: (406) 482-7769
b. Subcontractor(s): Swenson Drilling		Address: Box 693 Sidney, MT 59270	Telephone: (406) 482-1270
c. Subcontractor(s): Bohe Drilling		Address: 715 4th St SE Minot, ND 58701	Telephone: 800-489-3205
3) Party Manager: Billy Flippo		Address:	Telephone:
4) Project Name or Line Numbers: Little Knife Prospect			
5) Exploration Method (Shot Hole, Non-Explosive, 2D, 3D): Shot Hole 3-D			
6) Approximate Drilling Start Date: July 22, 1998		Approximate Completion Date: September 15, 1998	

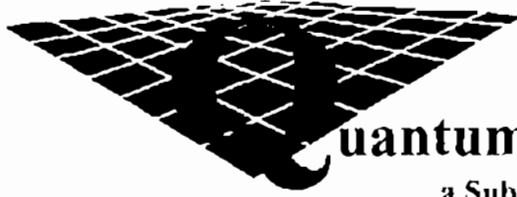
THE COMMISSION MUST BE NOTIFIED AT LEAST 24 HOURS IN ADVANCE OF COMMENCEMENT OF DRILL/PLUG OPERATIONS

7) Location of Proposed Project - County: Billings, Dunn, McKenzie Counties								
Section(s), Township(s) & Range(s): See Attached Sheet		Sec. _____	T _____	R _____				
		Sec. _____	T _____	R _____				
		Sec. _____	T _____	R _____				
		Sec. _____	T _____	R _____				
8) Size of Hole: 2.5"	Amt. of Charge: 10#	Depth: 60	Shots per Mi. (sq. mi.): 65	No. of Mi. (sq. mi.): 58	Identifying Marks Used on Nonmetallic Plug			
					Geophysical ID	a. Plugger ID	b. Plugger ID	c. Plugger ID
					QGI	*	*	*

9) Anticipated special drilling and plugging procedures?		
10) Enclose a pre-plot map with proposed location of seismic program lines and powder mag.		
Signed: <i>By a [Signature]</i>	Title: Permit Agent	Date: July 17, 1998

(This space for State office use)	
Permit No.: 970038	Approval Date: 7/20/98
Approved By: ORIGINAL SIGNED BY DAVID C. HVINDEN	
Title: Geophysical Regulations Supervisor	
County Approval Sent: <i>Billings, Dunn, McKenzie</i>	

Conditions of Approval if any:
** surface plug must be identified by permit # and plugger ID.*
[Signature]



Quantum Geophysical, Inc.
a Subsidiary of Geokinetics Inc.



Township 145 North Range 98 West Sections: 11,12,13,14,23,24,25,26,35,36

Township 145 North Range 97 West Sections: 7,8,17,18,19,20,21,22,26,27,28,29,30
31,32,33,34,35,36

Township 144 North Range 97 West Sections: 5,6,7,8,18,19,30,31

Township 144 North Range 98 West Sections: 1,2,3,4,5,8,9,10,11,12,13,14,15,16,17,
20,21,22,23,24,25,,26,27,28,29,32,33,34
35,36,

ADDITIONAL SUBCONTRACTOR: Buckskin Services
919 12th St SW
Sidney, MT 59270

406-482-4092

NORTH DAKOTA INDUSTRIAL COMMISSION

OIL AND GAS DIVISION

Lynn D. Helms
DIRECTOR

F.E. Wilborn
ASSISTANT DIRECTOR

July 20 ,1998

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

**RE: GEOPHYSICAL EXPLORATION PERMIT NO. 97-0038
Little Knife Prospect
Billings/Dunn/McKenzie Counties**

Dear Mr. Fulker:

This letter will verify the approval of the above-captioned Geophysical Permit effective July 20, 1998.

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

Lynn D. Helms
DIRECTOR

F.E. Wilborn
ASSISTANT DIRECTOR

July 20, 1998

The Honorable Reinhard Hauck
Dunn County Auditor
P.O. Box 105
Manning, ND 58642

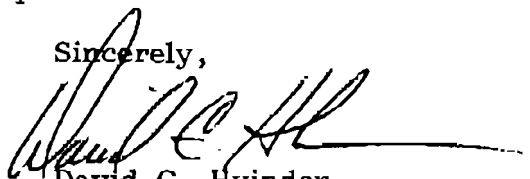
RE: Geophysical Exploration
Permit #97-0038

Dear Mr. Hauck:

Pursuant to Section 38-08.1-04.2 of the North Dakota Century Code, please be advised that Quantum Geophysical was issued the above captioned permit on July 20, 1998 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

NORTH DAKOTA INDUSTRIAL COMMISSION

OIL AND GAS DIVISION

Lynn D. Helms
DIRECTOR

F.E. Wilborn
ASSISTANT DIRECTOR

July 20, 1998

The Honorable Frances M. Olson
McKenzie County Auditor
P.O. Box 543
Watford City, ND 58854

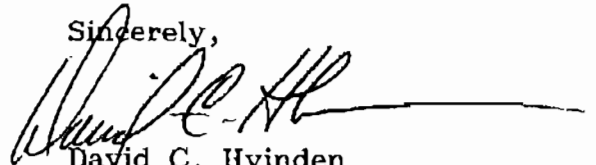
RE: Geophysical Exploration
Permit #97-0038

Dear Ms. Olson:

Pursuant to Section 38-08.1-04.2 of the North Dakota Century Code, please be advised that Quantum Geophysical was issued the above captioned permit on July 20, 1998 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

NORTH DAKOTA INDUSTRIAL COMMISSION

OIL AND GAS DIVISION

Lynn D. Helms
DIRECTOR

F.E. Wilborn
ASSISTANT DIRECTOR

July 20, 1998

The Honorable Laura Griffin
Billings County Tax Director
P.O. Box 247
Medora, ND 58645

RE: Geophysical Exploration
Permit #97-0038

Dear Ms. Griffin:

Pursuant to Section 38-08.1-04.2 of the North Dakota Century Code, please be advised that Quantum Geophysical was issued the above captioned permit on July 20, 1998 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