

JAMES BRUCE

ATTORNEY AT LAW

POST OFFICE BOX 1056
SANTA FE, NEW MEXICO 87504

SUITE B
612 OLD SANTA FE TRAIL
SANTA FE, NEW MEXICO 87501

(505) 982-2043
(505) 982-2151 (FAX)

February 15, 1999

BEFORE THE
OIL CONSERVATION DIVISION
Case No. 12158 Exhibit No. — 1
Submitted By:
Santa Fe Energy
Hearing Date: April 15, 1999

Hand Delivered

Michael E. Stogner
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505

Dear Mr. Stogner:

Pursuant to Division Rule 104.F(2), Chi Energy, Inc. applies for administrative approval of an unorthodox gas well location for the following well:

Greenstone Fed. Com. Well No. 1
Surface location: 480 feet FSL & 1650 feet FEL
E½ §19, Township 20 South, Range 34 East, NMPM
Lea County, New Mexico

Applicant requests a bottomhole location the same as the surface location, or in the alternative a location 760 feet from the South line and 1650 feet from the East line of the section. Alternative Form C-102's for the well are submitted as Exhibits A and B.

The well will be drilled to a total vertical depth of approximately 13,900 feet, to test the Morrow formation (Undesignated Mid-Bell Lake-Morrow Gas Pool). The pool is subject to statewide rules, requiring 320 acre well units, with wells located no closer than 1650 feet to the end boundary and 660 feet to the side boundary of the well unit, and no closer than 330 feet to a quarter-quarter section line.

The proposed location is based on potash and geologic reasons. The well is located in the oil-potash area, as defined by Division Order No. R-111-P. Applicant has been informed by the Bureau of Land Management that the only permissible surface location in the E½ of Section 19 is within 150 feet of the existing Yarbrough Oil Co. Lynch Fed. Well No. 1, located 330 feet from the South line and 1650 feet from the East line of Section 19. Thus, the surface location for the well must be at or near the proposed location.

Attached as Exhibit C is a net isopach map of the Lower Morrow Clastics, the main pay zone. The Morrow formation in this area is a narrow north-south trending sand bar. A well at the proposed location(s) is favorably situated geologically, and will encounter approximately 20-30 feet of net sand. As shown by the production data on Exhibit D, the structure map, this thickness is necessary to have a commercial well. Thus, a well at proposed location reduces the risk involved in drilling the well.

Applicant's alternate location would be obtained by directionally drilling approximately 280 feet north from the surface location. This can be done at reasonable cost. However, directionally drilling to an orthodox location (1650 feet from the South line of the section) is not desirable because it will increase the well's costs by approximately \$700,000.00, adversely affecting the well's economics.

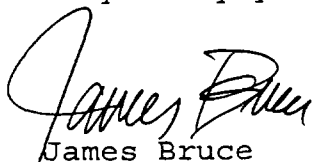
Attached as Exhibit E is a land plat of the area around the well. The lessees of the offsetting well units are as follows:

<u>Well Unit</u>	<u>Lessee</u>
W $\frac{1}{2}$ §19 & W $\frac{1}{2}$ §30	Santa Fe Energy Resources, Inc. Louis Dreyfus Natural Gas Corp. Southwestern Energy Production Company
E $\frac{1}{2}$ §30	Yates Petroleum Corporation Harvard Petroleum Corporation Santa Fe Energy Resources, Inc. Louis Dreyfus Natural Gas Corp. Southwestern Energy Production Company

Notice has been given to the offset lessees by the notice letter marked Exhibit F.

This application is submitted in duplicate. Please call me if you need anything further in this matter.

Very truly yours,



James Bruce

Attorney for Chi Energy, Inc.

ICT I

1980, Hobbs, NM 88241-1880

State of New Mexico

Energy, Minerals and Natural Resources Department

Form C-102

Revised February 10, 1984

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

DISTRICT II

Drawer 80, Artesia, NM 88211-0719

DISTRICT III

1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV

P.O. BOX 2088, SANTA FE, N.M. 87504-2088

OIL CONSERVATION DIVISION

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
Property Code	Property Name GREENSTONE FEDERAL COM	Well Number 1
OGED No.	Operator Name CHI OPERATING, INC.	Elevation 3658'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
0	19	20 S	34 E		480	SOUTH	1650	EAST	LEA

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

LOT 1 40.03 AC.									
LOT 2 40.06 AC.									
LOT 3 40.08 AC.									
LOT 4 40.11 AC.									

3657.8' — 3658.0'

3658.9' — 3660.7'

1650'

EXHIBIT

A

OPERATOR CERTIFICATION

I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.

John W. Qualls
Signature

John W. Qualls
Printed Name

Geologist
Title

2-5-99
Date

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision and that the same is true and correct to the best of my belief.

JANUARY 21, 1999

Date Surveyed

G. E. Edson
Signature

Professional Surveyor

NEW MEXICO

99-11-008

CDG

State No. 99-11-008

Edson 3239

12841

DISTRICT II
P.O. Box 988 DD, Artesia, NM 88211-0719

DISTRICT III
9 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV
P.O. BOX 2088, SANTA FE, N.M. 87604-2088

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
Property Code	Property Name GREENSTONE FEDERAL COM	Well Number 1
OGRID No.	Operator Name CHI OPERATING, INC.	Elevation 3658'

Surface Location

SL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
0	19	20 S	34 E		480	SOUTH	1650	EAST	LEA

Bottom Hole Location If Different From Surface

BL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
0	19	20 S	34 E		760	SOUTH	1650	EAST	LEA

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

LOT 1 40.03 AC.	LOT 2 40.06 AC.	LOT 3 40.08 AC.
LOT 4 40.11 AC.	3657.8' — 3658.0' 3658.9' — 3660.7' <u>DETAIL</u> SEE DETAIL	

EXHIBIT

B

OPERATOR CERTIFICATION

I hereby certify the the information contained hereto is true and complete to the best of my knowledge and belief.

John W. Qualls

Signature

John W. Qualls

Printed Name

Geologist

Title

2-5-99

Date

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision and that the same is true and correct to the best of my belief.

JANUARY 21, 1999

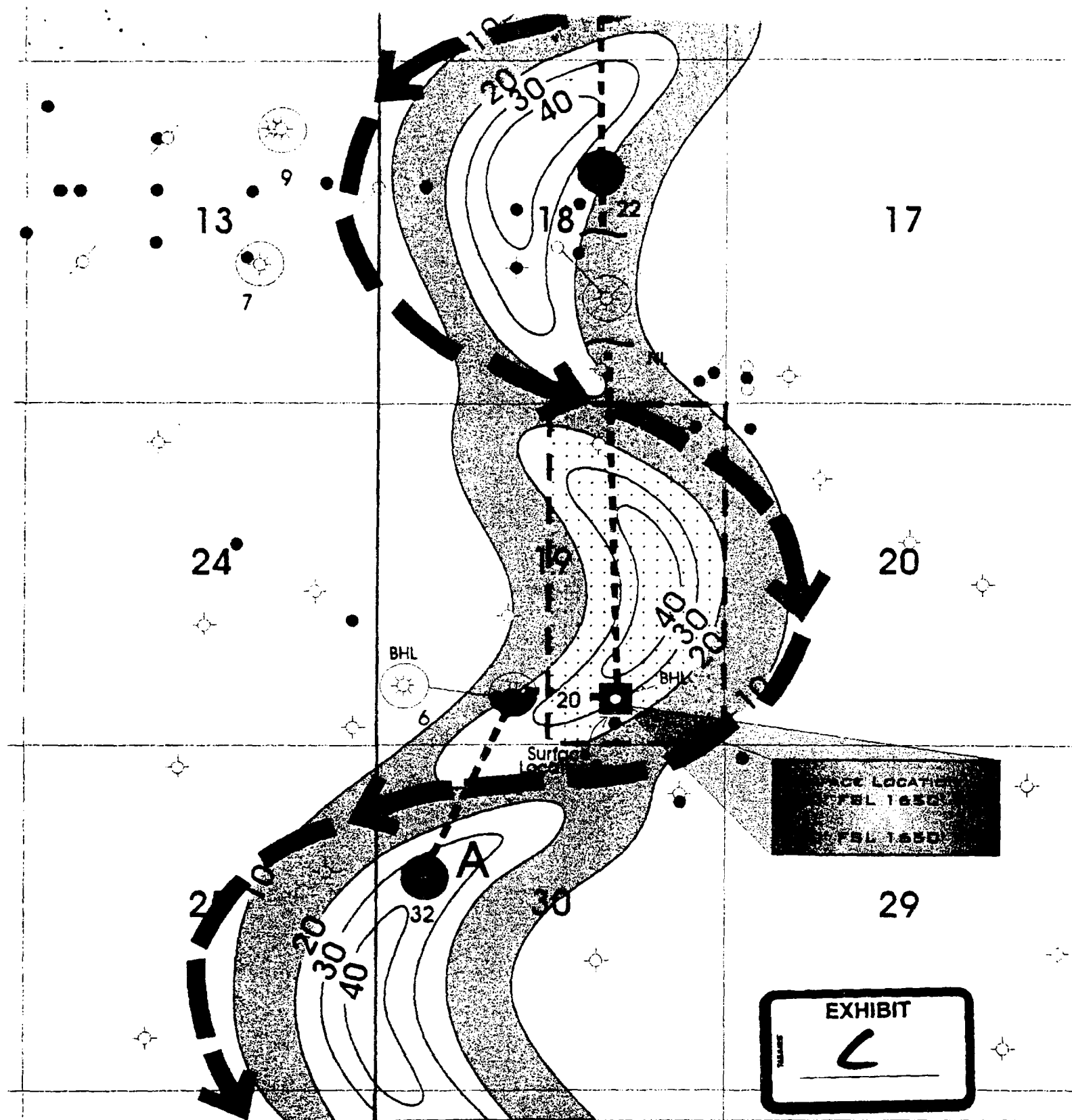
Date Surveyed

Ray G. Eidson

Signature & Seal

Professional Surveyor

CDG



LEGEND:

- | | |
|--------------------------|--------------------------|
| Chi Energy, Inc. Acreage | Lower Morrow Behind Pipe |
| Proposed Location | Proposed Proration Unit |
| Lower Morrow Producer | River Meander |

Chi Energy, Inc.

CS/Oxy Prospect

Lea County, New Mexico

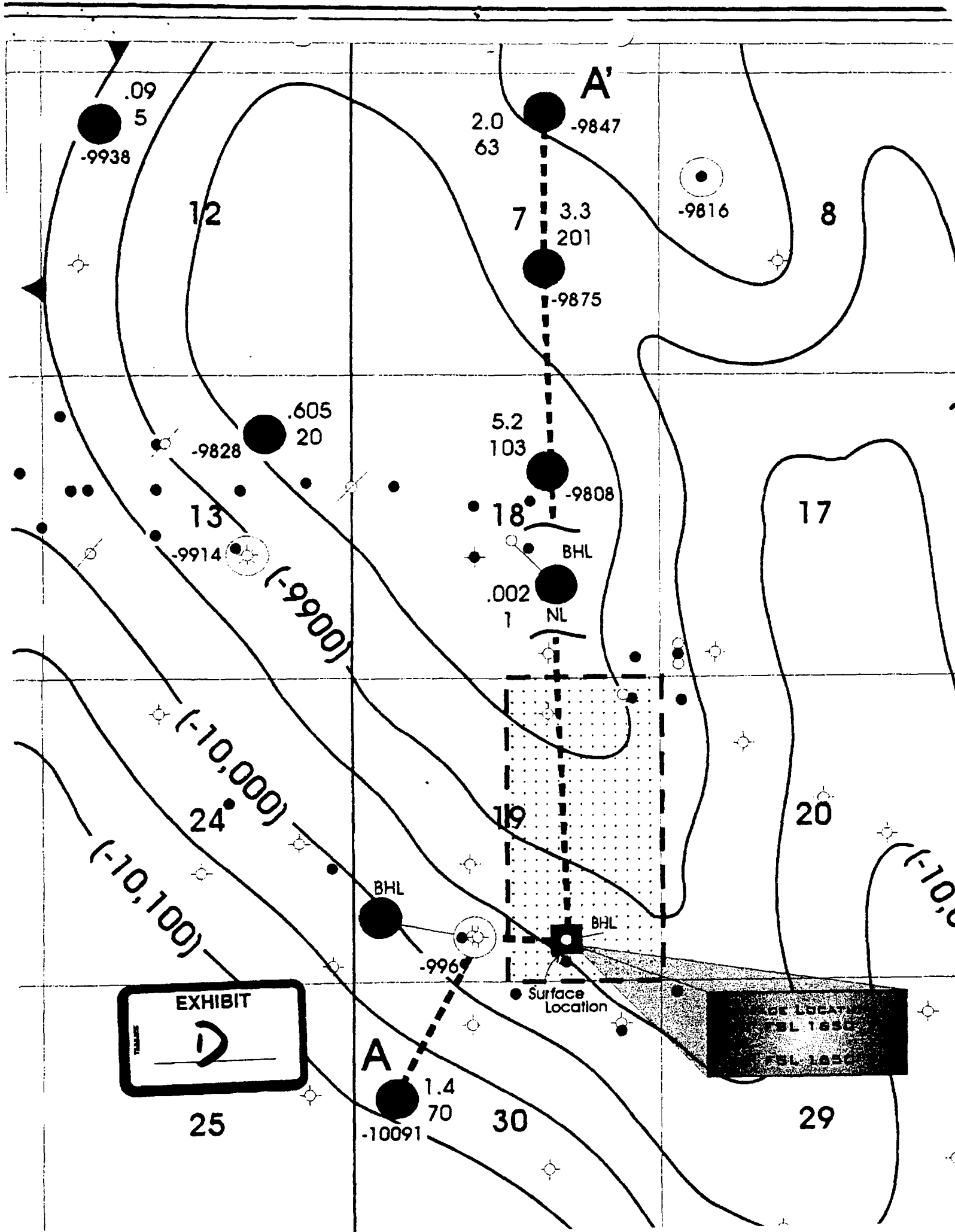
Isopach Map

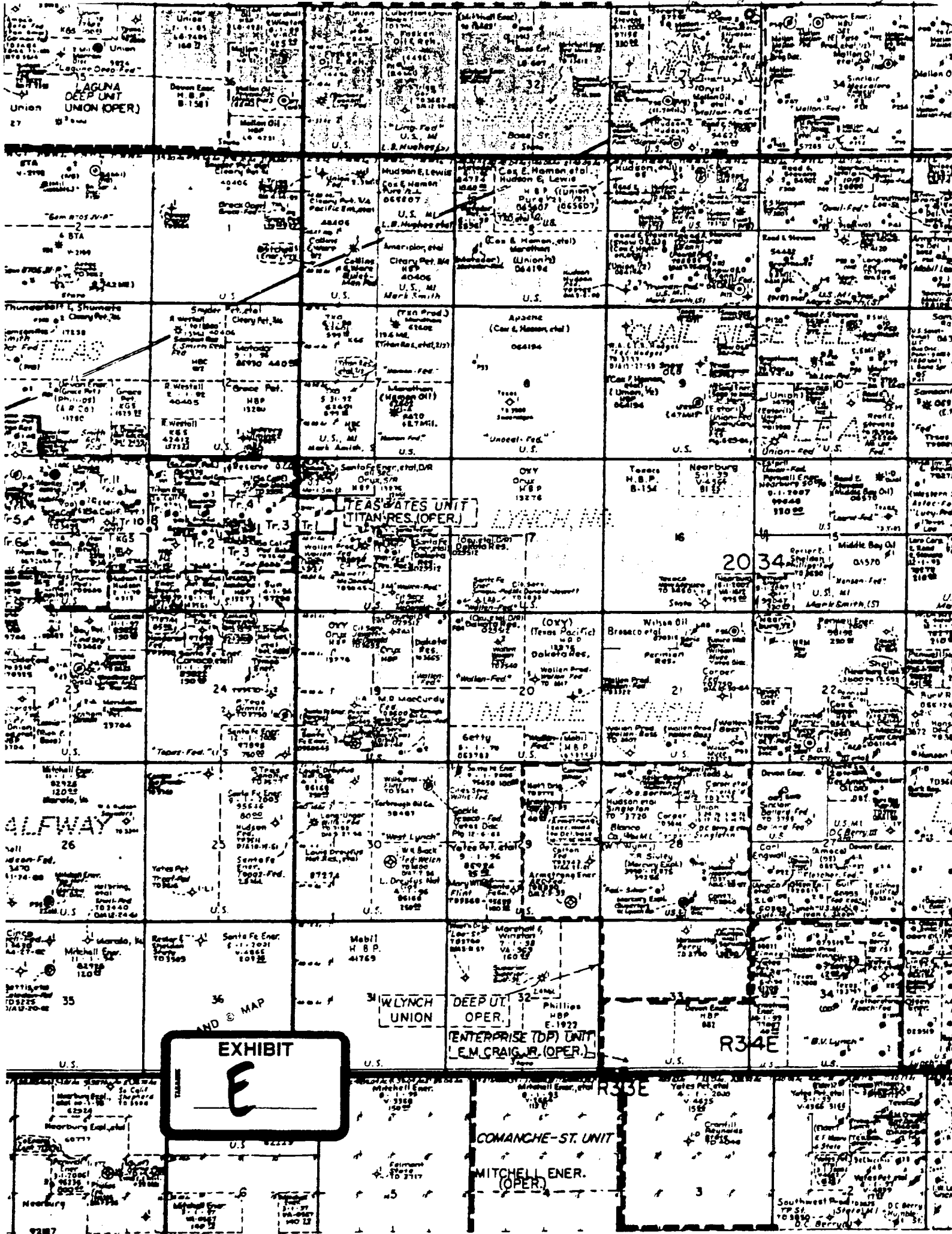
Lower Morrow Clastics
Net Clean Sand

Scale: 1" = 2000'

Cl: 10'

Geol: C. Ande





EXHIBIT

E

COMANCHE-ST. UNIT
MITCHELL ENER.
(OPER.)

JAMES BRUCE

ATTORNEY AT LAW

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SANTA FE, NEW MEXICO 87504

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SANTA FE, NEW MEXICO 87501

(505) 982-2043
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February 15, 1999

**CERTIFIED MAIL
RETURN RECEIPT REQUESTED**

Santa Fe Energy Resources, Inc.
Suite 1330
550 West Texas
Midland, Texas 79701
Attention: Steven J. Smith

Yates Petroleum Corporation
105 South Fourth Street
Artesia, New Mexico 88210

Louis Dreyfus Natural Gas Corp.
Suite 600
14000 Quail Springs Parkway
Oklahoma City, Oklahoma 74134
Attention: Joe W. Hammond

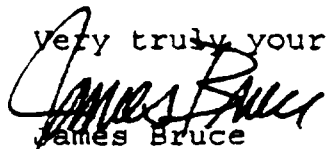
Harvard Petroleum Corp.
P.O. Box 936
Roswell, New Mexico 88202

Southwestern Energy Production Company
Suite 300
2350 North Sam Houston Parkway East
Houston, Texas 77032
Attention: Samuel Glenn Thompson

Dear Sirs:

Enclosed is a copy of an application for administrative approval of an unorthodox gas well location, filed with the New Mexico Oil Conservation Division by Chi Energy, Inc., regarding the E% of Section 19, Township 20 South, Range 34 East, NMPM, Lea County, New Mexico. Chi Energy's records indicate that you are an offset lessee to the proposed well. If you object to the application, you must notify the Division in writing no later than Monday, March 8, 1999. The Division's address is 2040 South Pacheco Street, Santa Fe, New Mexico 87505 (Attention: Michael E. Stogner).

Very truly yours,


James Bruce

Attorney for Chi Energy, Inc.

