

NSL 12/21/98



## Cross Timbers Oil Company

November 24, 1998

Lori Wrotenberg, Director  
New Mexico Oil Conservation Division  
2040 South Pacheco  
Santa Fe, New Mexico 87505

Re: Request for Administrative Approval of an Unorthodox Location  
Basin Fruitland Coal Pool  
Stanolind Gas Com D #2  
S/2 Section 17-32N-12W  
San Juan County, New Mexico

*5 miles east by north of  
La Plata, NM*

Gentlemen:

Cross Timbers Operating Company hereby requests administrative approval of the following unorthodox location:

Well Name:	Stanolind Gas Com D #2
Pool:	Basin Fruitland Coal
Location:	790' FSL & 790' FEL
Acreage Dedication:	S/2 Section 17-32N-12W, containing 320 acres, more or less
County/State:	San Juan County, New Mexico
Pool Rules:	Well location in NE/4 or SW/4

Attached is the following support and documentation for said application:

1. C-102 Plat
2. Geologic discussion
3. Copy of certified letter sent to offset operators/owners
  - A. Plat of offset operators
  - B. List of offset operators

We look forward to your approval and please call me at (817) 877-2336 with any questions.

Yours very truly,

Edwin S. Ryan, Jr.

cc: Bobby Smith - CTOC Midland

Gary Burch

Robin Tracy

NMCOD - Aztec District Office

1000 Rio Brazos Road

Aztec, New Mexico 87410

Offset Operators

11/17/98 18:59  
TRIGON SHEEHAN

915 887 0862

CROSS TIMBERS → FW LAND

002/003

Energy, Minerals & Natural Resources Department

Revised February 21, 1994

District II  
PO Drawer 00, Artesia, NM 88211-0719

OIL CONSERVATION DIVISION  
PO Box 2088  
Santa Fe, NM 87504-2088

Instructions on back  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

District III  
1000 Rio Brazos Rd., Aztec, NM 87410

District IV  
PO Box 2088, Santa Fe, NM 87504-2088

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number		Pool Code		Pool Name FRUITLAND COAL	
Property Code		Property Name STANOLIND GAS COM D			Well Number 2
OGARD No. 167067		Operator Name CROSS TIMBERS OPERATING COMPANY			Elevation 5989

<sup>10</sup> Surface Location

UL or lot no. P	Section 17	Township 32N	Range 12W	Lot 301	Feet from the 790	North/South line SOUTH	Feet from the 790	East/West line EAST	County SAN JUAN
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<sup>11</sup> Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot 301	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acres		Date of Dedication		Consolidation Date		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

2634.72'		2441.34'		<sup>17</sup> OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.	
4	3	2	1	Signature	
5	6	7	8	Printed Name	
17				Title	
				Date	
12	11	10	9	<sup>18</sup> SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes or actual surveys made by me or under my supervision and that the same is true and correct to the best of my belief.	
2616.90'				SEPTEMBER 28, 1998	
13	14	15	16	Date of Survey	
4996.86'				Signature and Seal of Surveyor	
790'				NEALE D. EDWARDS NEW MEXICO 8867	
790'				Certificate No. 8857	

## STANOLIND GAS COM "D" #2 GEOLOGIC SUMMARY

The Stanolind Gas Com "D" #2 is a proposed 2000' Fruitland Coal test to be located 790' FSL and 790' FEL of Section 17-T32N-R12W San Juan County, New Mexico. There is currently no Fruitland Coal production in the section.

The Fruitland Coal in this area can be divided into an upper coal sequence, which is actually 3 or more 5-10 ft. thick coals over a 50-100 ft. interval, and a lower coal, which is 30-35 ft. thick in the prospect area, and overlies the Pictured Cliffs Formation.

The proposed well lies within a NE-SW trending structural flexure (see attached structure map). To the NW of the axis of structural flexure, the beds are steeply dipping to the SE. To the SE of the flexure, the beds are gently dipping to the SE. The axis of flexure, in theory, should be an area of intense fracturing, which in turn would correspond to highly productive Fruitland Coal wells. Outstanding coal production has been established along this trend 2 mi. to the NE and 3 mi. to the SW.

The primary risk in this area is in the amount of water production associated with the coal gas. The Fruitland Formation outcrops approximately 2 mi. NW of the producing trend, and is a recharge area for water which flows down towards the producing wells. Wells nearer to the outcrop (and structurally higher) produce more water. The water inhibits gas production, and consequently, wells that are too far updip produce too much water and too little gas to be economic. This effect can be seen on resistivity logs; as the water saturation increases, the amount of resistivity greater than 80 ohms (used as a cutoff for gas production) decreases.

*Andy K. Burch*  
4/19/16

Stanolind Gas Com "D" #2  
Geologic Summary  
Page 2

The following table shows the effect of structure on gas and water production rates on coal wells along trend to the NE:

	STRUCT. TOP OF FRUITLAND COAL	INITIAL STABILIZED GAS RATE (MCF/MO)	INITIAL STABILIZED WATER RATE (BBL/MO)	CURRENT GAS RATE (MCF/MO.)	CURRENT WATER RATE (BBL/MO)
Southern Ute #6-24 SE SW Sec. 24-32N-12W La Plata Co., Colorado	+5361	10,000	20,000	15,000	12,000
Cundiff "A" #2 NE ¼ Sec. 17-32N-12W San Juan Co., NM	+5168	NA	NA	0*	0*
Stanolind Gas Com "B" #1E SE ¼ Sec. 9-32N-12W San Juan Co., NM	+4334	-----	-----	36,000**	1,800**
Southern Ute 32-11 #19-2 SW ¼ Sec. 19-32N-11W	+4175	30,000	6,000	120,000	1,000
* Well was tested in the Fruitland, but never put online and is now inactive (assumed to be uneconomic).					
** Well has just recently been put on-line.					

The Cundiff "A" #2 tested the Fruitland Coal at a legal location in Sec. 17 and did not make an economic well and is now inactive. A well at a legal location in the SW ¼ of Section 17 would likely be wet in the upper coals and may produce a substantial amount of water from the lower coal. In our opinion, the most geologically favorable, lowest risk, and best location from an economic standpoint would be in the SE¼. Therefore, in order to best capture the reserves in the SE¼ of Section 17, an unorthodox location is necessary.

22

23

24

LA PLATA COUNTY  
STATE OF COLORADO

R12W

STATE OF NEW MEXICO  
SAN JUAN COUNTY

7

8

9

OUTCROP  
AREACONSOLIDATED O&G  
BOWIE-THATCHER  
1-18+5860 est  
(not logged)

18

MERIDIAN OIL INC  
(EL PASO NAT GAS)  
CUNDIFF "A"

+5168

17

UNIVERSAL RESOURCES

AMOCO PROD  
STANOLIND GAS COM-(B)-E

+4334

1

WO

EL PASO NAT GAS  
CUNDIFF+5363 est  
(poor log)

19

AMOCO PROD  
STANOLIND GAS COM-D  
1A

+4841

STANDARD GAS  
COM. "D" #2

STATE

T  
32 N

+3904

+5500

+5200

+5100

+5000

+4800

+4700

+4600

+4500

+4400

+4300

+4200

+4100

EL PASO NAT GAS  
CUNDIFF

+4272

1-X

(2313)

4700

ENGY RES GROUP  
FED GAS COM-I

+4028

1-A

5115

PAN AM PET  
FED GAS UT

+3969

1

4920

AZTEC O&G  
1-A

5077 NL

AZTEC O&amp;G

15

+3858

7240

AZTEC O&G  
CULPEPPER-MARTIN

+3996

8

4899

SO ROY CO  
CULPEPPER-MARTIN

+3947

8-A

5020

AZTEC O&G  
CULPEPPER-MARTIN

+3887

12

(4881)

7070

12-A

5064 NL

AZTEC O&G  
(SO UN GAS)

2380 NL

(4950)

5104

+3864

CULPEPPER-MARTIN

## -LEGEND-

● LOWER FRUITLAND COAL PRODUCTION

● UPPER & LOWER FRUITLAND  
COAL PRODUCTION

NL NO LOG

▲ PROPOSED FRUITLAND COAL  
DRILL WELL LOCATION

N

Scale 1:24000.

1000 0 1000 2000 3000 4000 5000 feet



Cross Timbers Oil Company

SAN JUAN BASIN

T 32 N - R 12 W

SAN JUAN COUNTY, NEW MEXICO

STRUCTURE MAP  
TOP OF UPPER FRUITLAND COAL

CONTOUR INTERVAL: 100 feet

GEOLOGIST: GARY BURCH

DATE: NOVEMBER 1998



## Cross Timbers Oil Company

November 24, 1998

Certified Mail - Return Receipt Requested

Burlington Resources Oil & Gas Company  
P.O. Box 4289  
Farmington, New Mexico 87499

Dugan Production Corporation  
P.O. Box 420  
Farmington, New Mexico 87499

Re: Unorthodox Location  
Stanolind Gas Com D #2  
S/2 Section 17-32N-12W  
San Juan County, New Mexico

Gentlemen:

Cross Timbers Operating Company filed the attached application for administrative approval of the above unorthodox location with the New Mexico Oil Conservation Division on November 24, 1998. If you object to the application, you must file a written objection with the Oil Conservation Division within 20 days of the date the application was filed.

Yours very truly,

Cross Timbers Operating Company

Edwin S. Ryan, Jr.



R-13-W

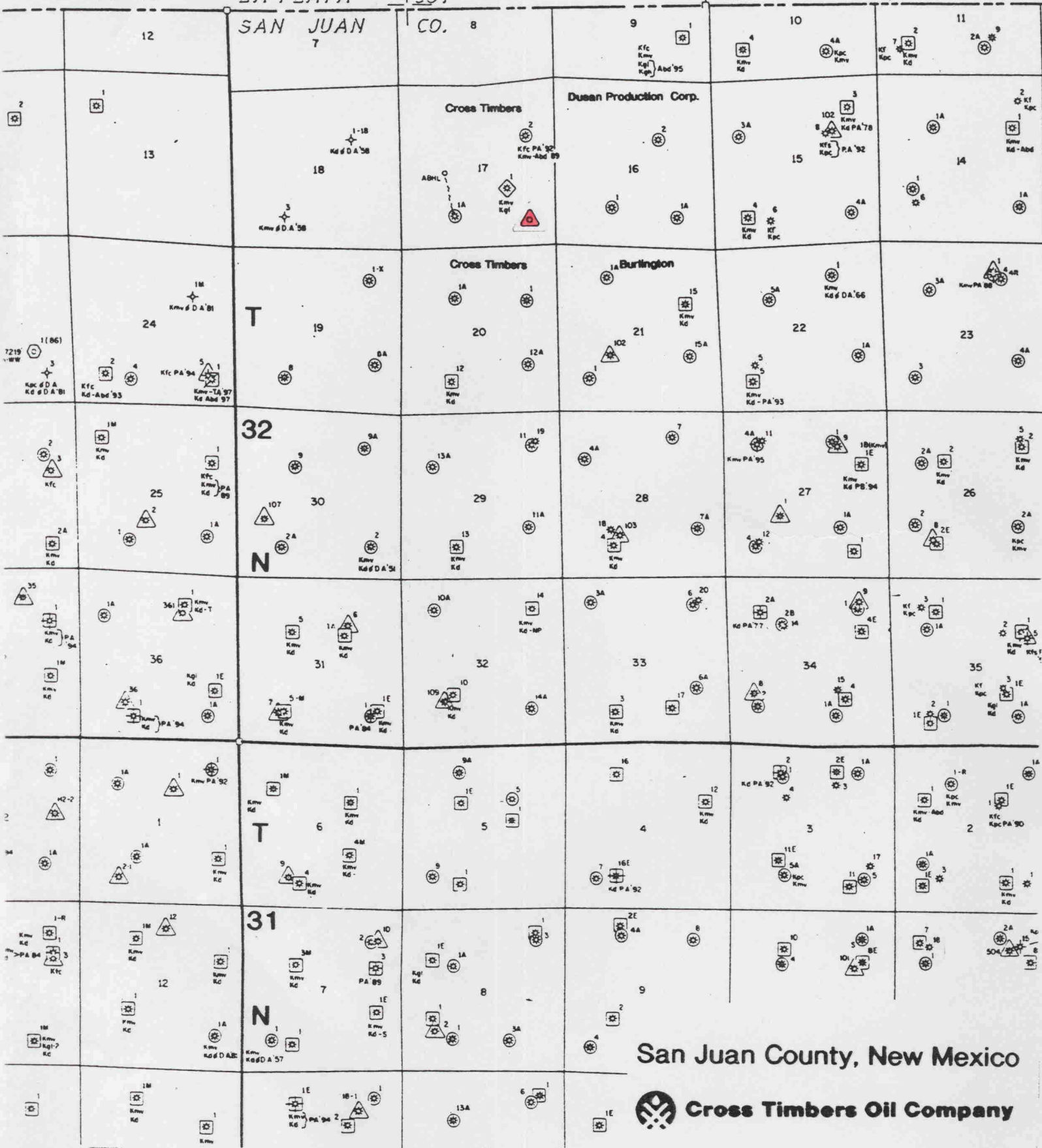
LA PLATA

CO.

R-12-W

SAN JUAN  
7

CO. 8



San Juan County, New Mexico



Cross Timbers Oil Company



OFFSET OPERATORS/OWNERS  
UNORTHODOX LOCATION  
STANOLIND GAS COM D #2  
S/2 SECTION 17-32N-12W  
SAN JUAN COUNTY, NEW MEXICO

Dugan Production Corporation  
P.O. Box 420  
Farmington, New Mexico 87499

Burlington Resources Oil and Gas Company  
P.O. Box 4289  
Farmington, New Mexico 87499