

WELLS W/PRODUCTION

Operator
Well Name & Number
Cum Oil MBO Cum Gas MMCF
Curr Rate Bopd Curr Rate Mcfd
Start-End Date
Formation

BEFORE EXAMINER STOGNER
OIL CONSERVATION DIVISION
Cross Timbers EXHIBIT NO. 1
CASE NO. 12523

CROSS TIMBERS OIL COMPANY

SAN JUAN COUNTY, NEW MEXICO
9 SECTION - 17-28N-10W
DAKOTA PRODUCERS ONLY

| | | |
|----------------|------------|------------|
| Johnny LeBon | B. Voigt | 10/20/2000 |
| Scale 1:24000. | 1" = 2000' | 17-28-10 |



Cross Timbers Oil Company

August 14, 2000

CERTIFIED MAIL

Mathias Family Trust Dated 9-9-81
Eugene P. Mathias and Barbara J.
Mathias, Trustees
452 Maidstone Lane
Thousand Oaks, CA 91320

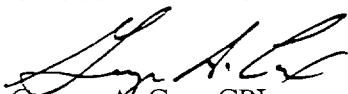
RE: New Drill
Federal E #1E Well
E/2 Unit
SE/4 Section 17-28N-10W
San Juan County, New Mexico

Dear Working Interest Owner:

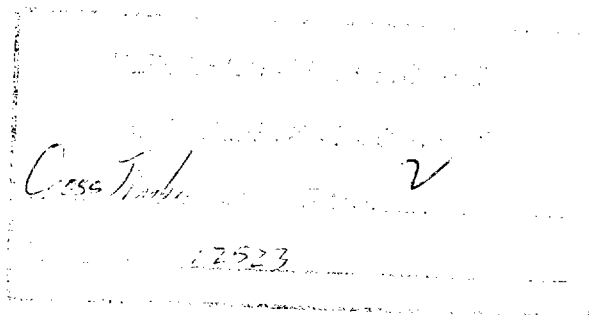
Cross Timbers Oil Company (CTOC) hereby proposes to drill the above captioned well to a depth of 6,850' to the Dakota Formation. Our proposed location is 1255' FSL and 930' FEL of the Section. Our records indicate that Mathias Family Trust dated 9-9-81 has a working interest of .6892%. Enclosed please find a copy of our AFE which provides for a dry hole cost of \$200,300 and a completed well cost of \$413,700.

Enclosed also please find a Joint Operating Agreement for this E2 Unit that covers the Dakota Formation. Please review the Agreement and should you elect to participate, forward a signed signature page along with an executed AFE to the undersigned. CTOC is prepared to drill this well as soon as possible, so your immediate response would be greatly appreciated. Should you have any questions, please feel free to contact me at (817) 885-2454.

Sincerely,
CROSS TIMBERS OIL COMPANY


George A. Cox, CPL
Landman

Enclosures





Cross Timbers Oil Company

August 24, 2000

Working Interest Owners
(See attached list)

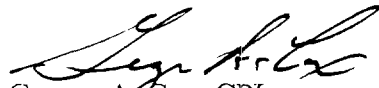
RE: Federal E #1E Well
E/2 Section 17-28N-10W
San Juan County, New Mexico

Dear Working Interest Owners:

On August 14, 2000 I sent you a well proposal along with an AFE and Joint Operating Agreement for the above captioned well. As of the date of this letter I have not received a signed Joint Operating Agreement and your election to join or go non-consent under the Joint Operating Agreement. Cross Timbers Oil Company is making plans to drill this well in the near future and we need to know your election pertaining to your interest in this well.

Please let me know if you have any questions concerning our proposal as soon as possible. I will need to make application with the NMOCD for a force pooling hearing and I will need to list any party who has not signed the Joint Operating Agreement and responded to our proposal. Please contact me as soon as possible.

Sincerely,
CROSS TIMBERS OIL COMPANY


George A. Cox, CPL
Landman

Cross Timbers

3

12527

WORKING INTEREST OWNERS
FEDERAL E #1E

Mathias Family Trust dtd 9-9-81
452 Maidstone Lane
Thousand Oaks, CA 91320

Virginia L. Mullin
1 Churchill Drive
Englewood, CO 80110

William L. Floyd, Jr.
16 East 77th Street, #5A
New York, New York 10021-1723

Richard P. Shooshan, Trustee
of the Shooshan Family Trust
686 E. Union St.
Pasadena, CA 91101-1820

Leon M. DuCharme Marital Trust
2617 South Wadsworth Circle
Lakewood, CO 80277-3220

Rita Mae DuCharme
2617 South Wadsworth Circle
Lakewood, CO 80277-3220

Rita Treasa Floyd, Jr.
8 Admiral Drive #236
Emeryville, CA 94608

Chateau Energy, Inc.
5950 Berkshire Ln #275
Dallas, TX 75225-5846

Bernard Hyde Trust
Bernard Hyde Trustee
28242 Yanez
Mission Viejo, CA 92692-1836



AUTHORITY FOR EXPENDITURE

AFE No. Lease Name Federal "E"

Well No. #1E

Description SE/4 of Sec 17, T28N, R10W

County San Juan

| | | | |
|-------|------------|------|-------------------|
| State | New Mexico | Area | San Juan Division |
|-------|------------|------|-------------------|

| | |
|----------|------|
| Operator | CTOC |
|----------|------|

| | | | |
|---------|--|------|-----------------|
| State | <u>NEW MEXICO</u> | Area | <u>SAN JUAN</u> |
| Project | <u>Drill & Complete a infill Dakota Gas Well</u> | | |

Prepared by JW Patton

| | | | |
|-------------|-------------|---|--------------|
| Exploration | Development | X | Recompletion |
|-------------|-------------|---|--------------|

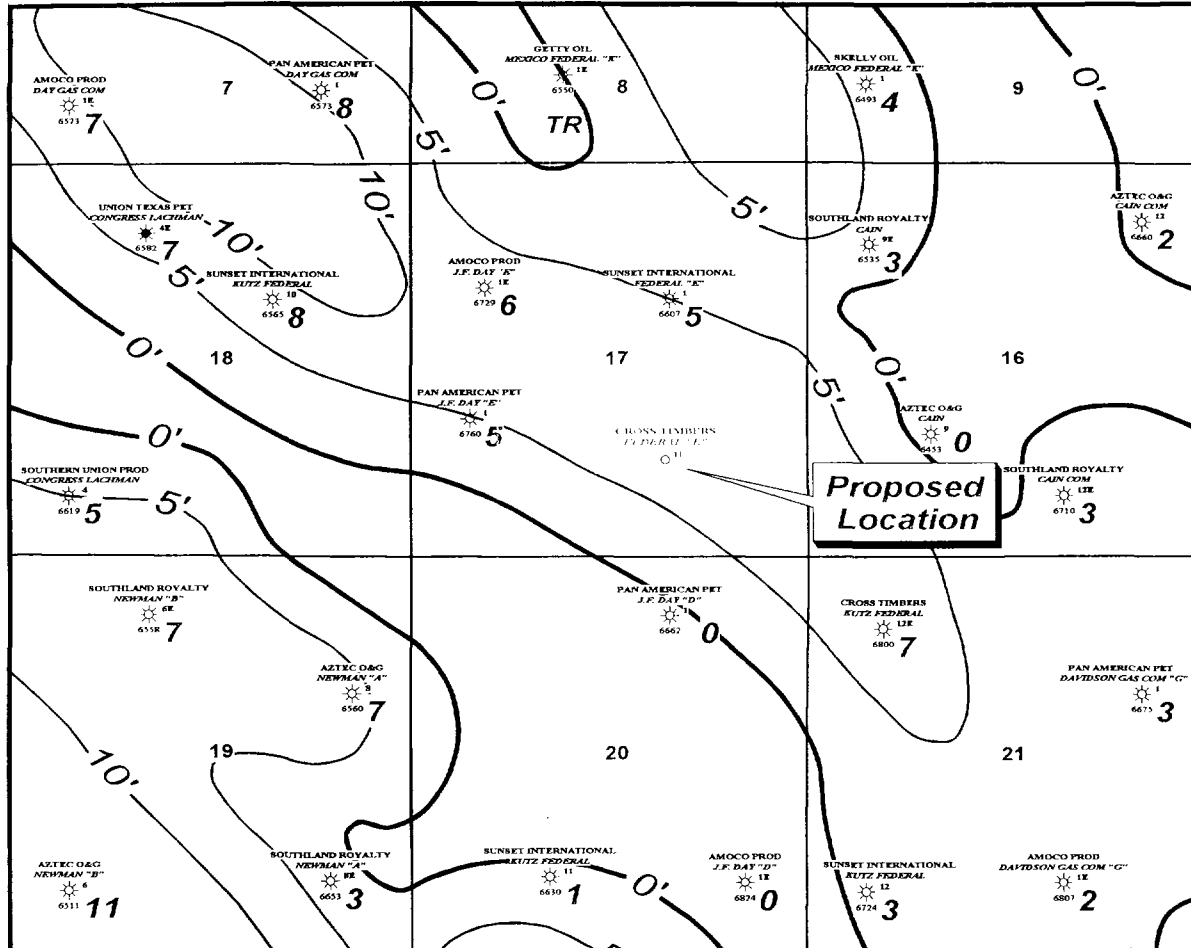
6,850' TVD

Date 07/24/2000

| 24x_xx | | INTANGIBLE | TANGIBLE | TOTAL |
|---|---|------------|----------|-----------|
| 8-01 | CONDUCTOR HOLE / RATHOLE | | | \$0 |
| 8-01 | DAYWORK DRILLING 10 days @ \$6,300/day | \$63,000 | | \$63,000 |
| 8-01 | FOOTAGE DRILLING | | | \$0 |
| 8-01 | MOVING RIG | \$9,500 | | \$9,500 |
| 8-01 | TURNKEY DRILLING | | | \$0 |
| 8-03 | CONTRACT LABOR | \$4,000 | | \$4,000 |
| 8-04 | TRUCKING | \$5,000 | | \$5,000 |
| 8-05 | LOCATION / ROADS / PITS | \$12,000 | | \$12,000 |
| 8-06 | MUD / CHEMICALS | \$10,000 | | \$10,000 |
| 8-06 | WATER & WATERLINES (for drilling) | \$12,000 | | \$12,000 |
| 8-07 | DST / WL FORMATION TESTING | | | \$0 |
| 8-08 | OPEN HOLE LOGS | \$16,000 | | \$16,000 |
| 8-09 | CEMENT & CEMENTING SERVICES | \$6,000 | | \$6,000 |
| 8-10 | DRILL BITS 1- 12 1/4", 3 - 7 7/8" Bits | \$20,000 | | \$20,000 |
| 8-10 | POWER & FUEL | \$2,000 | | \$2,000 |
| 8-11 | CASING CREWS, TOOLS & TONGS | | | \$0 |
| 8-12 | RENTAL TOOLS & EQUIPMENT | \$4,000 | | \$4,000 |
| 8-15 | CORING & CORE ANALYSIS | | | \$0 |
| 8-16 | PUMP TRUCKS & SERVICES | | | \$0 |
| 8-17 | ENGINEERING / SUPERVISION 10 days @ \$500/day | \$5,000 | | \$5,000 |
| 8-18 | MUD LOGGING UNIT | \$5,000 | | \$5,000 |
| 8-18 | DIRECTIONAL TOOLS & SERVICE | | | \$0 |
| 8-18 | FISHING TOOLS & SERVICE | | | \$0 |
| 8-21 | LAND DAMAGES / LEGAL WORK | \$5,000 | | \$5,000 |
| 9-01 | OVERHEAD 10 days @ \$300/day | \$3,000 | | \$3,000 |
| 9-01 | CONDUCTOR PIPE | | | \$0 |
| 9-01 | INTERMEDIATE CASING | | | \$0 |
| 9-01 | SURFACE CASING 8-5/8" Surface Csg set @ 350' | | \$2,800 | \$2,800 |
| 9-03 | BRADENHEAD | | \$4,500 | \$4,500 |
| 9-10 | NON-CONT. TANG. EQUIP. DRLG. | | | \$0 |
| CONTINGENCIES 5% | | \$9,100 | \$400 | \$9,500 |
| TOTAL COST TO CASING POINT | | \$190,600 | \$7,700 | \$198,300 |
| PLUG & ABANDONMENT | | \$2,000 | | \$2,000 |
| TOTAL COST IF DRY HOLE | | \$192,600 | \$7,700 | \$200,300 |
| 8-02 | COMPLETION UNIT 6 days @ \$2250/day | \$13,500 | | \$13,500 |
| 8-03 | CONTRACT LABOR | \$5,000 | | \$5,000 |
| 8-03 | INSTALLATION OF SERVICE EQUIPMENT | | | \$0 |
| 8-04 | TRUCKING | \$5,000 | | \$5,000 |
| 8-05 | FILL PITS & DRESS LOCATION | \$2,500 | | \$2,500 |
| 8-06 | CHEMICAL PRODUCTS | | | \$0 |
| 8-06 | WATER TRANSPORTS (DELIVERY & DISPOSAL) | \$5,000 | | \$5,000 |
| 8-07 | CASED HOLE WIRELINE SERVICES | \$3,000 | | \$3,000 |
| 8-09 | CEMENT & CEMENTING SERVICES | \$17,000 | | \$17,000 |
| 8-11 | CASING CREWS, TOOLS & TONGS | \$4,000 | | \$4,000 |
| 8-11 | RENTAL TOOLS & EQUIPMENT | \$5,000 | | \$5,000 |
| 8-15 | FRAC PIT / LINER | | | \$0 |
| 8-15 | FRAC TANK RENTALS & TANK TRUCKING (TO LOC.) | \$4,000 | | \$4,000 |
| 8-15 | PUMP TRUCKS & SERVICES | | | \$0 |
| 8-15 | STIMULATION SERVICES Dakota Frac | \$60,000 | | \$60,000 |
| 8-16 | ENGINEERING / SUPERVISION 6 days @ \$500/day | \$3,000 | | \$3,000 |
| 8-18 | FISHING TOOLS & SERVICES | | | \$0 |
| 8-18 | LEGAL WORK | | | \$0 |
| 8-18 | PLUG & ABANDONMENT | | | \$0 |
| 8-21 | OVERHEAD 6 days @ \$300/day | \$1,800 | | \$1,800 |
| 9-01 | PRODUCTION CASING / LINER 4-1/2", 10.5# Csg @ 6850' | | \$25,700 | \$25,700 |
| 9-02 | TUBING 2-3/8" Tbg @ 6750' | | \$15,200 | \$15,200 |
| 9-03 | TUBINGHEAD / X-MAS TREE | | \$6,500 | \$6,500 |
| 9-04 | ARTIFICIAL LIFT EQUIPMENT | | \$2,500 | \$2,500 |
| 9-04 | SUBSURFACE EQUIPMENT / SALVABLE | | | \$0 |
| 9-05 | SEPARATION EQUIPMENT / GAUGES | | \$10,000 | \$10,000 |
| 9-05 | TANKS / WALKS / STAIRWAYS | | \$4,000 | \$4,000 |
| 9-09 | FLOWLINES & FITTINGS | | \$4,500 | \$4,500 |
| 9-10 | NON-CONT. TANG. EQUIP. COMPL. EFM/MTR RUN | | \$8,000 | \$8,000 |
| CONTINGENCIES 5% | | \$6,400 | \$3,800 | \$10,200 |
| TOTAL COST TO COMPLETE & EQUIP | | \$135,200 | \$80,200 | \$215,400 |
| TOTAL WELL COST | | \$325,800 | \$87,900 | \$413,700 |
| <div style="display: flex; justify-content: space-between;"> <div>OPERATOR _____</div> <div>BY _____</div> <div>WI % _____</div> <div>DATE _____</div> </div> <div style="display: flex; justify-content: space-between;"> <div>COMPANY _____</div> <div>BY _____</div> <div>WI % _____</div> <div>DATE _____</div> </div> <div style="display: flex; justify-content: space-between;"> <div>COMPANY _____</div> <div>BY _____</div> <div>WI % _____</div> <div>DATE _____</div> </div> <div style="display: flex; justify-content: space-between;"> <div>COMPANY _____</div> <div>BY _____</div> <div>WI % _____</div> <div>DATE _____</div> </div> <div style="display: flex; justify-content: space-between;"> <div>COMPANY _____</div> <div>BY _____</div> <div>WI % _____</div> <div>DATE _____</div> </div> | | | | |

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**Proposed
Location**

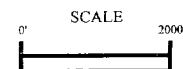
Federal "E" #1E

SAN JUAN COUNTY, NEW MEXICO

**1st. DAKOTA SANDSTONE
NET SANDSTONE ISOPACH**

CONTOUR INTERVAL: 5'

DATE: NOVEMBER, 2000

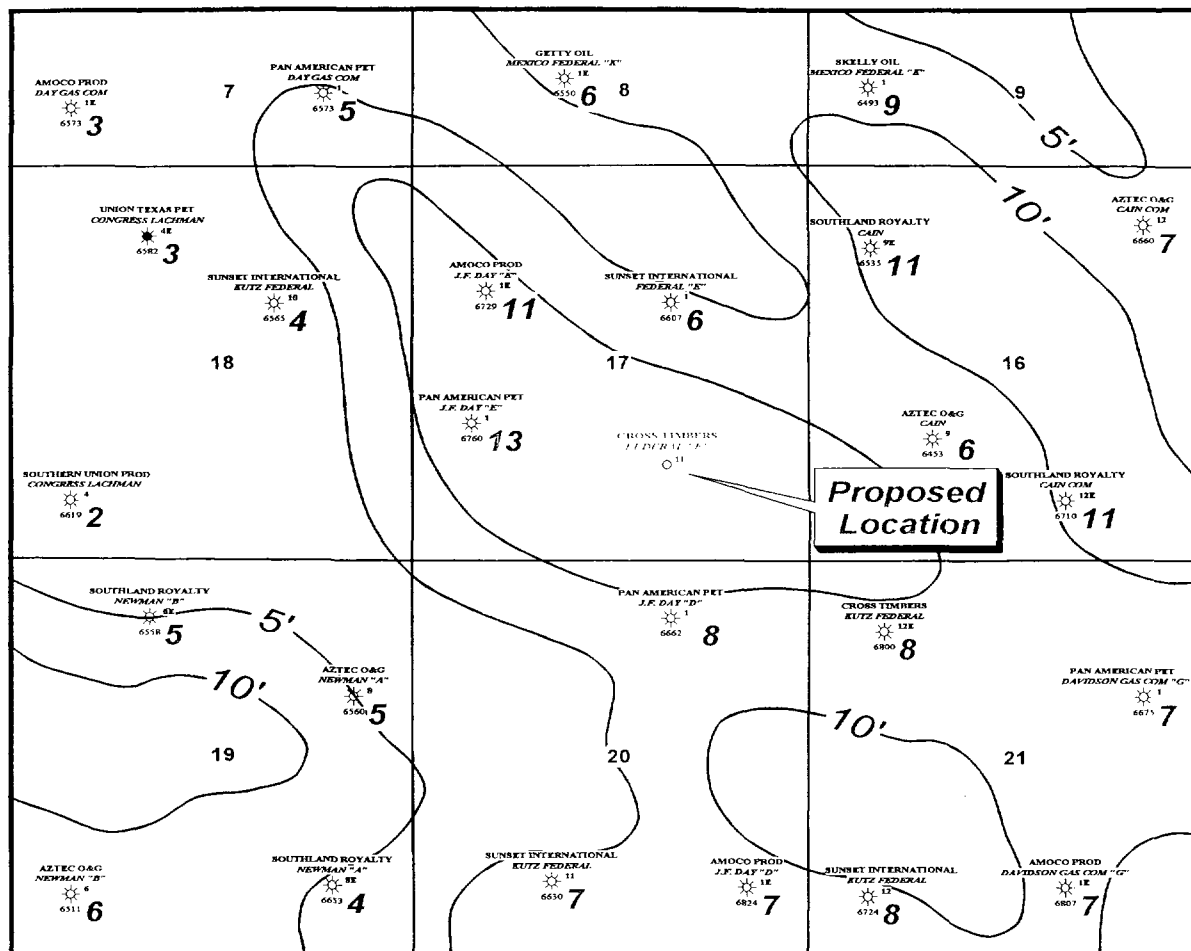


Cross Timbers Oil Company

MAPS / INSTRUMENTS
CROSS TIMBERS OIL COMPANY
CROSS TIMBERS OIL COMPANY
CASE NO. 12523

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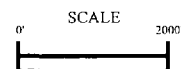
Cross Timbers Oil Company
Case No. 12523



Federal "E" #1E
SAN JUAN COUNTY, NEW MEXICO
2nd. DAKOTA SANDSTONE
NET SANDSTONE ISOPACH

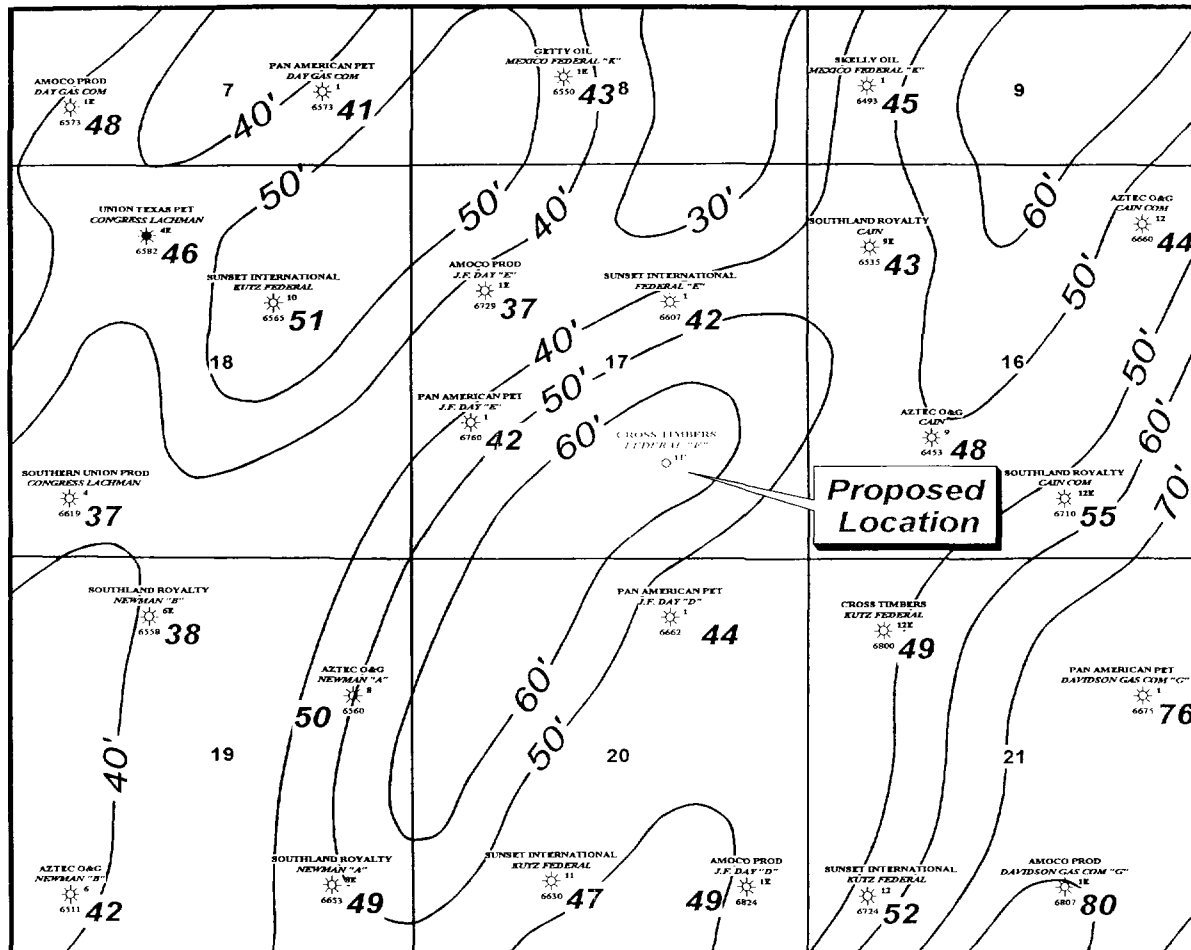
CONTOUR INTERVAL: 5'

DATE: NOVEMBER, 2000



Cross Timbers Oil Company

R 10 W



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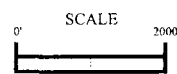
BEFORE EXAMINER STOOER
OIL CONSERVATION DIVISION
Cross Timbers EXHIBIT NO. 7
12523



Federal "E" #1E
SAN JUAN COUNTY, NEW MEXICO
3rd. DAKOTA SANDSTONE
NET SANDSTONE ISOPACH

CONTOUR INTERVAL: 10'

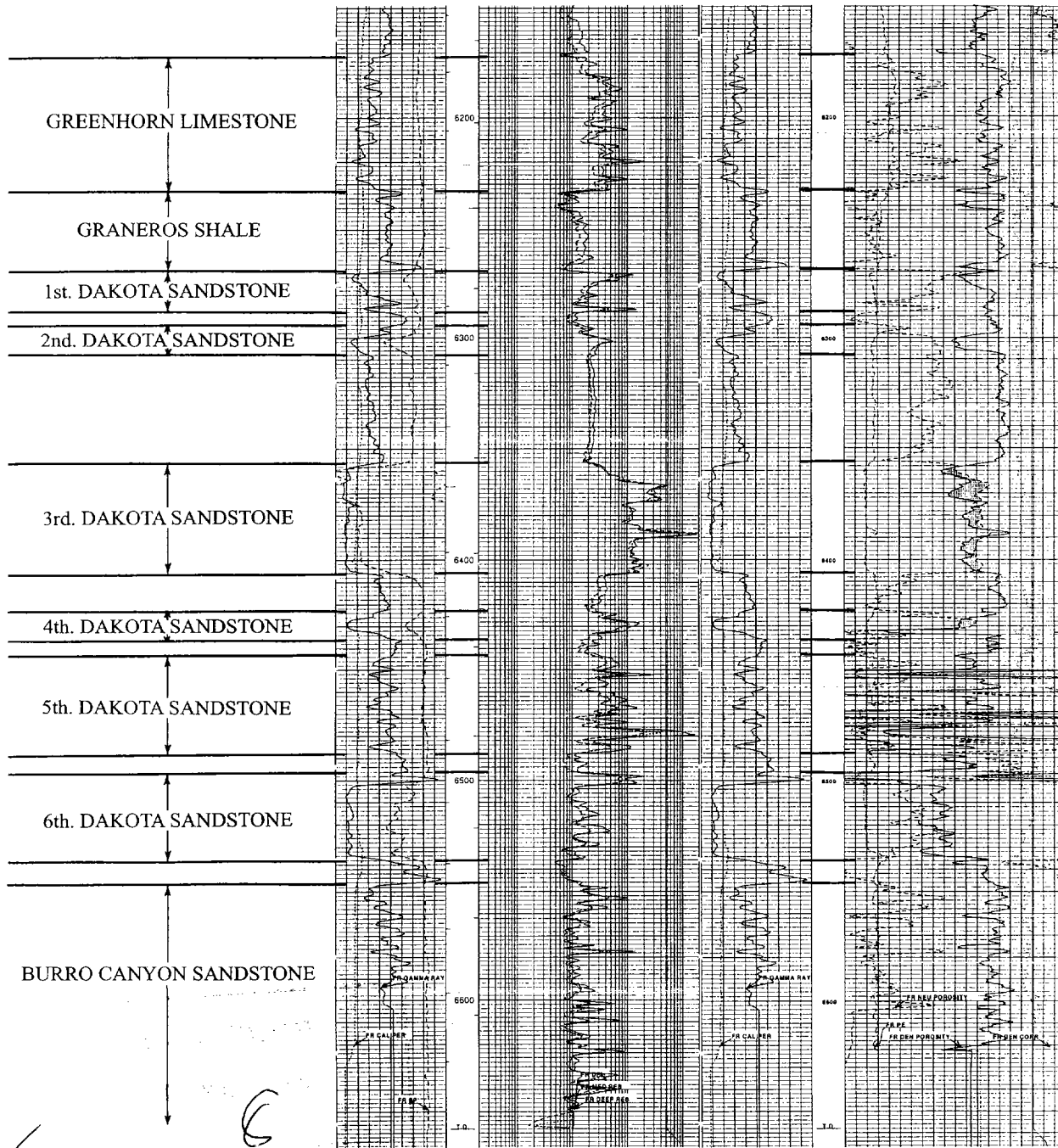
DATE: NOVEMBER, 2000



Cross Timbers Oil Company

TYPE LOG **CROSS TIMBERS OIL COMPANY** **Federal "A" #1E**

1535' FNL & 1055' FWL
 Section 32 T28N - R10W
 San Juan County, New Mexico
 KB: 5,895'



Cross Timbers

12523

4 STAR O&G
MEXICO FED K 1E
077 335/1103
0/0 0/48
UNKN-8701/8007-0004
PCCF/DKOT

CTOC
DAY GAS COM
8 1578
0 0
6011-8602
DKOT

CTOC
DAY GAS COM 1E
3 424
0 124
8403-0003
DKOT

4 STAR O&G
MEXICO FED K 1
32 3983
0 65
6112-0004
DKOT

BURLINGTON
CAIN COM 12
35 4938
1 74
6105-0004
DKOT

BURLINGTON
CAIN 9E
2 432
0 75
8103-0004
DKOT

CTOC
J F DAY E 1E
3 305
0 33
8403-0003
DKOT

CTOC
FED E 1
48 5608
1 91
5901-0003
DKOT

CTOC
J F DAY E 1
22 3342
0 114
5908-0003
DKOT

CTOC
FEDERAL E 1E

BURLINGTON
CAIN 9
42 6155
1 117
6004-0004
DKOT

BURLINGTON
CAIN COM 12E
0/8 448/1317
0/0 52/103
8103-0004/8103-0004
CHCR/DKOT

0004
TAURUS
CONGRESS LACHMAN 4
47 3645
0 13
6210-0004
DKOT

BURLINGTON
NEWMAN B 6E
3 374
0 27
8008-0004
DKOT

BURLINGTON
NEWMAN A 8
33 5137
0 0
6011-9812
DKOT

CTOC
J F DAY D 1
52 6265
1 105
UNKN-0003
DKOT

CTOC
KUTZ FED 12E
0 182
0 1005
9908-0003
DKOT

CTOC
DAVIDSON GAS COM G 1
79 7390
1 187
5911-0003
DKOT

BURLINGTON
NEWMAN B 6
23 2534
0 10
6003-0004
DKOT

BURLINGTON
NEWMAN A 8E
4 622
1 93
8008-0004
DKOT

CTOC
KUTZ FED 11
38 4415
2 80
6012-0003
DKOT

CTOC
J F DAY D 1E
0/3 124/524
0/0 13/45
8112-0003/8111-0003
CHCR/DKOT

CTOC
KUTZ FED 12
65 6737
0 111
6011-0003
DKOT

CTOC
DAVIDSON GAS COM G 1E
6 1008
0 69
8102-0003
DKOT

WELLS W/PRODUCTION

Operator
Well Name & Number
Cum Oil MBO ● Cum Gas MMCF
Curr Rate Bopd ● Curr Rate Mcfd
Start-End Date
Formation

Cross Timbers
12523
9

CROSS TIMBERS OIL COMPANY

SAN JUAN COUNTY, NEW MEXICO
9 SECTION - 17-28N-10W
DAKOTA PRODUCERS ONLY

Johnny LeBon

B Vogt

10/20/2000

Scale 1:24000

1" = 2000'

17-23-10

BASIN DAKOTA
SECTION 17-T28N-R10W
1st SAND

Fluid Properties

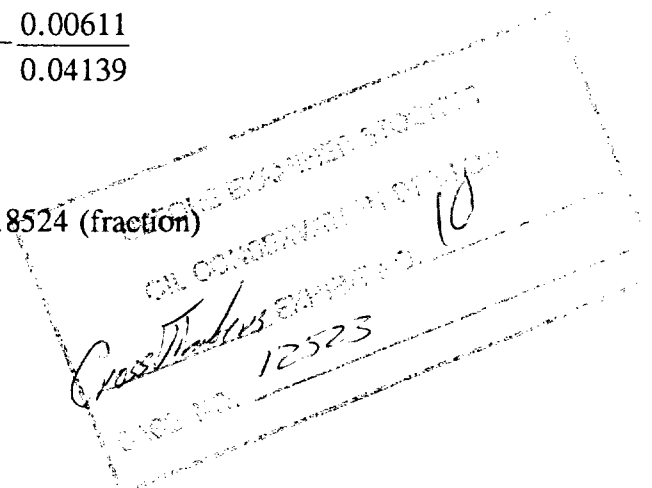
| | | | |
|-----------------|---|------------------------------|-------------------------------|
| Gas Gravity | = | 0.646 | Gas Analysis |
| T _c | = | 365°R | Standing's Correlation |
| P _c | = | 678 psi | Standing's Correlation |
| T _r | = | 150 °F | Log Measurement |
| P _{ri} | = | 2,400 psi | Public Data |
| P _{ra} | = | 400 psi | Estimate |
| B _{gi} | = | 0.00611 ft ³ /SCF | Standing & Katz's Correlation |
| B _{ga} | = | 0.04139 ft ³ /SCF | Standing & Katz's Correlation |

Calculate Theoretical Recovery Factor:

$$RF_i = 1 - \frac{B_{gi}}{B_{ga}}$$

$$RF_i = 1 - \frac{0.00611}{0.04139}$$

$$RF_i = 0.8524 \text{ (fraction)}$$



Rock Properties

| | | | |
|------------------|---|-------|---|
| Acre - Feet | = | 2,718 | Planimetered from net sand thickness maps |
| Average Porosity | = | 0.11 | (Fraction) ϕ_{dn} Avg. of offsets |
| Water Saturation | = | 0.49 | (Fraction) Avg. of offsets |

Calculate GIP, Theoretical and Actual EUR:

$$GIP = \frac{.04356Ah_{\phi}(1-S_w)}{B_{gi}} MMCF$$

$$GIP = \frac{.04356(2,718)(0.11)(1-0.49)}{0.00611} MMCF$$

$$GIP = 1,087 \text{ MMCF}$$

$$EUR_t = RF_t \times GIP$$

$$EUR_t = (0.8524)(1,087)$$

$$EUR_t = 927 \text{ MMCF}$$

BASIN DAKOTA
SECTION 17-T28N-R10W
2nd SAND

Fluid Properties

| | | | |
|-------------|---|------------------------------|-------------------------------|
| Gas Gravity | = | 0.646 | Gas Analysis |
| T_c | = | 365°R | Standing's Correlation |
| P_c | = | 678 psi | Standing's Correlation |
| T_r | = | 150 °F | Log Measurement |
| P_{ri} | = | 2,400 psi | Public Data |
| P_{ra} | = | 400 psi | Estimate |
| B_{gi} | = | 0.00611 ft ³ /SCF | Standing & Katz's Correlation |
| B_{ga} | = | 0.04139 ft ³ /SCF | Standing & Katz's Correlation |

Calculate Theoretical Recovery Factor:

$$RF_t = 1 - \frac{B_{gi}}{B_{ga}}$$

$$RF_t = 1 - \frac{0.00611}{0.04139}$$

$$RF_t = 0.8524 \text{ (fraction)}$$

Rock Properties

| | | | |
|------------------|---|-------|---|
| Acre - Feet | = | 5,451 | Planimetered from net sand thickness maps |
| Average Porosity | = | 0.11 | (Fraction) ϕ_{dn} Avg. of offsets |
| Water Saturation | = | 0.44 | (Fraction) Avg. of offsets |

Calculate GIP, Theoretical and Actual EUR:

$$GIP = \frac{.04356Ah_{\phi}(1-S_w)}{B_{gi}} MMCF$$

$$GIP = \frac{.04356(5,451)(0.11)(1-0.44)}{0.00611} MMCF$$

$$GIP = 2,394 \text{ MMCF}$$

$$EUR_t = RF_t \times GIP$$

$$EUR_t = (0.8524)(2,394)$$

$$EUR_t = 2,041 \text{ MMCF}$$

BASIN DAKOTA
SECTION 17-T28N-R10W
3rd SAND

Fluid Properties

| | | | |
|-----------------|---|------------------------------|-------------------------------|
| Gas Gravity | = | 0.646 | Gas Analysis |
| T _c | = | 365°R | Standing's Correlation |
| P _c | = | 678 psi | Standing's Correlation |
| T _r | = | 150 °F | Log Measurement |
| P _{ri} | = | 2,400 psi | Public Data |
| P _{ra} | = | 400 psi | Estimate |
| B _{gi} | = | 0.00611 ft ³ /SCF | Standing & Katz's Correlation |
| B _{ga} | = | 0.04139 ft ³ /SCF | Standing & Katz's Correlation |

Calculate Theoretical Recovery Factor:

$$RF_t = 1 - \frac{B_{gi}}{B_{ga}}$$

$$RF_t = 1 - \frac{0.00611}{0.04139}$$

$$RF_t = 0.8524 \text{ (fraction)}$$

Rock Properties

| | | | |
|------------------|---|--------|---|
| Acre - Feet | = | 30,201 | Planimetered from net sand thickness maps |
| Average Porosity | = | 0.08 | (Fraction) ϕ_{dn} Avg. of offsets |
| Water Saturation | = | 0.36 | (Fraction) Avg. of offsets |

Calculate GIP, Theoretical and Actual EUR:

$$GIP = \frac{.04356Ah_{\phi}(1-S_w)}{B_{gi}}MMCF$$

$$GIP = \frac{.04356(30,201)(0.08)(1-0.36)}{0.00611}MMCF$$

$$GIP = 11,024 \text{ MMCF}$$

$$EUR_t = RF_t \times GIP$$

$$EUR_t = (0.8524)(11,024)$$

$$EUR_t = 9,397 \text{ MMCF}$$