

INFILL DRILLING FINDINGS AND WELL-SPACING WAIVER
MADE PURSUANT TO SECTION 271.305(b) OF THE
FEDERAL ENERGY REGULATORY COMMISSION REGULATIONS,
NATURAL GAS POLICY ACT OF 1978 AND OIL CONSERVATION DIVISION
ORDER NO. R-6013

I.

Operator Dugan Production Corporation Well Name and No. Farming "D" Com Well No. 1-R
Location: Unit K Sec. 2 Twp. 27N Rng. 9W Cty. San Juan

II.

THE DIVISION FINDS:

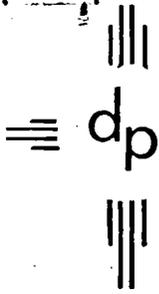
- (1) That Section 271.305(b) of the Federal Energy Regulatory Commission Interim Regulations promulgated pursuant to the Natural Gas Policy Act of 1978 provides that, in order for an infill well to qualify as a new onshore production well under Section 103 of said Act, the Division must find, prior to the commencement of drilling, that the well is necessary to effectively and efficiently drain a portion of the reservoir covered by the proration unit which cannot be so drained by any existing well within that unit, and must grant a waiver of existing well-spacing requirements.
- (2) That by Order No. R-6013, dated June 7, 1979, the Division established an administrative procedure whereby the Division Director and the Division Examiners are empowered to act for the Division and find that an infill well is necessary.
- (3) That the well for which a finding is sought is to be completed in the Blanco Pictured Cliffs Pool, and the standard spacing unit in said pool is 160 acres.
- (4) That a 160 -acre proration unit comprising the SW/4 of Sec. 2, Twp. 27N, Rng. 9W, is currently dedicated to the Farming "D" Com Well No. 1 located in Unit M of said section.
- (5) That this proration unit is (X) standard () nonstandard; if nonstandard, said unit was previously approved by Order No. N/A.
- (6) That said proration unit is not being effectively and efficiently drained by the existing well(s) on the unit.
- (7) That the drilling and completion of the well for which a finding is sought should result in the production of an additional 210,000 MCF of gas from the proration unit which would not otherwise be recovered.
- (8) That all the requirements of Order No. R-6013 have been complied with, and that the well for which a finding is sought is necessary to effectively and efficiently drain a portion of the reservoir covered by said proration unit which cannot be so drained by any existing well within the unit.
- (9) That in order to permit effective and efficient drainage of said proration unit, the subject application should be approved as an exception to the standard well spacing requirements for the pool.

IT IS THEREFORE ORDERED:

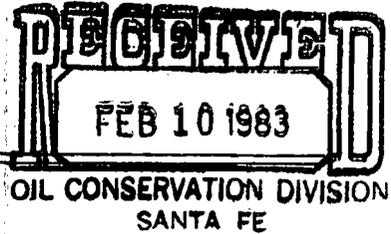
- (1) That the applicant is hereby authorized to drill the well described in Section I above as an infill well on the existing proration unit described in Section II(4) above. The authorization for infill drilling granted by this order is an exception to applicable well spacing requirements and is necessary to permit the drainage of a portion of the reservoir covered by said proration unit which cannot be effectively and efficiently drained by any existing well thereon.
- (2) That jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on this 2nd day of February, 19 83.


DIVISION DIRECTOR EXAMINER



dugan production corp.



February 8, 1983

State of New Mexico
Energy and Minerals Department
Oil Conservation Division
P.O. Box 2088
State Land Office Bldg.
Santa Fe, NM 87501

Attn: Joe D. Ramey, Director

Re: Application for Infill Well Finding
Pursuant to Order No. R-6013-A

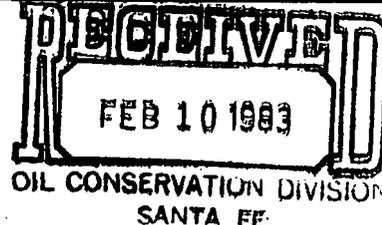
Gentlemen:

This is the application of Dugan Production Corp. requesting an administrative determination by the New Mexico Oil Conservation Division pursuant to Order R-6013-A.

In accordance with the filing requirements under the special rules and regulations applicable to Order R-6013-A, enclosed please find an approved Form C-101 and Form C-102 applicable to the Farming D Com #1-R Well. Also enclosed is a structure map for the Pictured Cliffs formation in the area of the subject well and a cumulative production/pressure decline curve for the original well in the subject proration unit - Dugan Production Corp.'s Farming D Com #1 Well.

The well which is the subject of this application has been drilled to, and completed in, the Blanco Pictured Cliffs Pool. The standard spacing unit size for this pool is 160 acres.

Two wells have been drilled on the subject proration unit. Dugan Production Corp.'s Farming D Com #1 Well was the original well on the proration unit. This well is located 845' from the South line and 790' from the West line of Section 2, Township 27 North, Range 9 West, NMPM, San Juan County, New Mexico. It was spudded on July 12, 1957 and completed on July 17, 1957. This well developed a casing leak and ceased to produce in April, 1979. The working interest owners in this well were contacted concerning the possibility of conducting remedial operations on the well. Because of the age of the well (22 years) and the possibility of not being able to return the well to producing status, it was decided that remedial operations should not be attempted,



New Mexico Oil Conservation Division
February 8, 1983
Page Two

and that a replacement well should be drilled. The Farming D Com #1 Well is not currently producing. A notice of intention to plug and abandon the well has been filed with the New Mexico Oil Conservation Division. This well produced 338,812 MCF of gas from January 2, 1958 through April, 1979. Our estimate of recoverable reserves from this well is 550,000 MCF. In our opinion, the condition of the wellbore and the low productivity of the well would not permit the production of these additional reserves.

The second well drilled on the subject proration unit is Dugan Production Corp.'s Farming D Com #1-R Well. It is a replacement well for the original well on the proration unit, and it was drilled in an effort to recover reserves which could not otherwise be produced from the original well on the proration unit. The Farming D Com #1-R Well is located 1725' from the South line and 1850' from the West line of Section 2, Township 27 North, Range 9 West, NMPM, San Juan County, New Mexico. This well was spudded on May 20, 1982, completed on July 12, 1982 and first-delivered on January 31, 1983. It is currently producing 236 MCF of gas per day.

Dugan Production Corp. believes it will recover a minimum of 210,000 MCF from the infill well. This additional recovery estimate is based on the shut-in pressure on the Farming D Com #1-R Well of 310 p.s.i.g. as opposed to the shut-in pressure on the Farming D Com #1 Well of 760 p.s.i.g. In addition, porosity in the Farming D Com #1-R Well is calculated to average 16% over the perforated interval. Permeability is estimated to be in the range of 1 to 5 millidarcies.

Based upon the foregoing information, Dugan Production Corp. requests a finding by the New Mexico Oil Conservation Division that the drilling of the Farming D Com #1-R Well was necessary to effectively and efficiently drain a portion of the reservoir covered by the subject proration unit which could not otherwise be drained by the existing well within the subject proration unit.

All operators of proration or spacing units offsetting the subject proration unit have been notified of this application by certified mail.

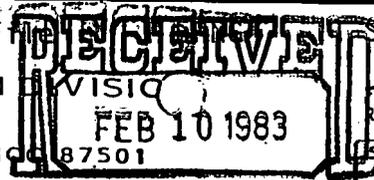
Sincerely,

Tommy Roberts
General Counsel

TR:nw

enc.

OIL CONSERVATION DIVISION
P. O. BOX 2088
SANTA FE, NEW MEXICO 87501



Form C-101
Revised 10-1-78
3A. Indicate Type of Lease
STATE FEE

NO. OF COPIES RECEIVED	
DISTRIBUTION	
SANTA FE	
FILE	
U.S.G.S.	
LAND OFFICE	
OPERATOR	

30-045-25396

5. State Oil & Gas Lease No.
E1-1200-1

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

Type of Work Type of Well OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER <input type="checkbox"/>		DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/> PLUG BACK <input type="checkbox"/>		7. Unit Agreement Name	
Name of Operator DUGAN PRODUCTION CORP.		SINGLE ZONE <input checked="" type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>		8. Farm or Lease Name Farming D Com	
Address of Operator P O Box 208, Farmington, NM 87401		Name of Operator DUGAN PRODUCTION CORP.		9. Well No. 1R	
Location of Well UNIT LETTER <u>K</u> LOCATED <u>1725</u> FEET FROM THE <u>South</u> LINE		Address of Operator P O Box 208, Farmington, NM 87401		10. Field and Pool, or Wildcat Blanco Pictured Cliffs	
1850 FEET FROM THE <u>West</u> LINE OF SEC. <u>2</u> TWP. <u>27 N</u> RGE. <u>9 W</u> NMPM		Name of Operator DUGAN PRODUCTION CORP.		12. County San Juan	
Elevations (Show whether DF, RI, etc.) 6210' GL		19. Proposed Depth 2475'		19A. Formation Pictured Cliffs	
21A. Kind & Status Plug. Bond State wide		21B. Drilling Contractor Morrow		20. Rotary or C.T. Rotary	
22. Approx. Date Work will start 5-20-82					

PROPOSED CASING AND CEMENT PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
8-3/4"	7"	20#	100'	50 cu.ft.	surface
5"	2-7/8"	6.5#	2475'	300 cu.ft.	surface

Plan to drill well with minimum mud, using slim hole technique to test the Pictured Cliffs Formation. Plan to set 2-7/8" tubing for casing thru the formation, selectively perforate, frac, clean out after frac, run 1 1/2" tubing, and complete well.

APPROVAL VALID FOR 90 DAYS UNLESS DRILLING COMMENCED,

EXPIRES November 18, 1982

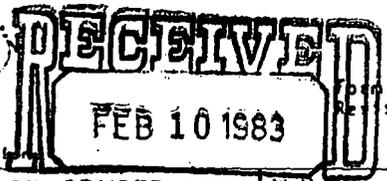


ABOVE SPACE DESCRIBE PROPOSED PROGRAM; IF PROPOSAL IS TO DEEPEN OR PLUG BACK, GIVE DATA ON PRESENT PRODUCTIVE ZONE AND PROPOSED NEW PRODUCTIVE ZONE. GIVE BLOWOUT PREVENTER PROGRAM, IF ANY.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.
Thomas A. Dugan Title Petroleum Engineer Date 5-18-82

APPROVED BY Jack T. Day TITLE _____ DATE MAY 18 1982
SUPERVISOR DISTRICT # 3

CONDITIONS OF APPROVAL, IF ANY:
BOP required



All distances must be from the outer boundaries of the Section

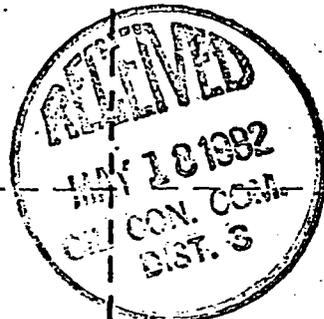
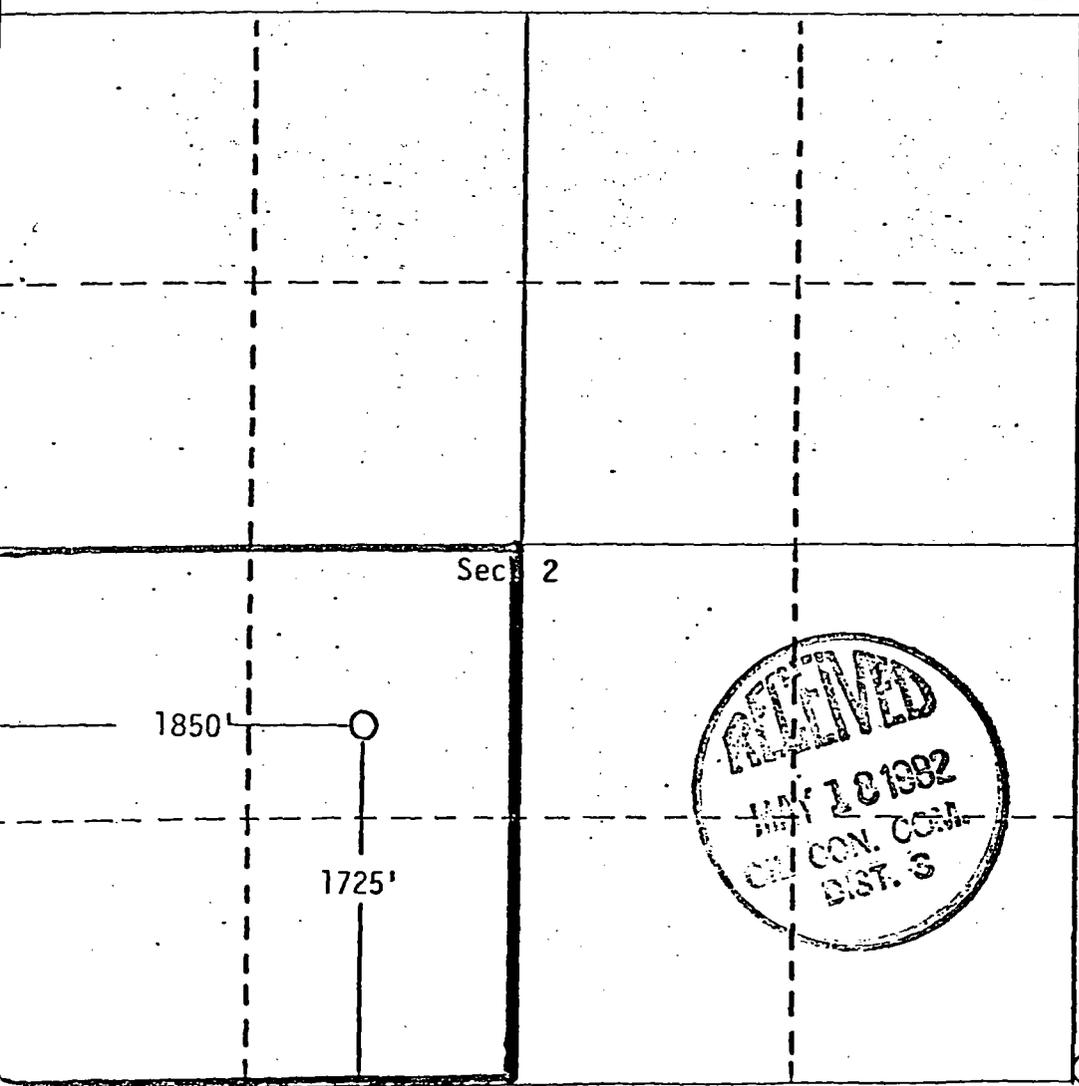
Operator DUGAN PRODUCTION CORP.		Lease Farming D Com		OIL CONSERVATION DIVISION SANTA FE	
Well Letter K	Section 2	Township 27 North	Range 9 West	County San Juan	
Well Footage Location of Well: 1725 feet from the South line and 1850 feet from the West line					
Ground Level Elev. 6210	Producing Formation Pictured Cliffs	Pool So. Blanco	Dedicated Acreage: 160 Acres		

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

Yes No If answer is "yes," type of consolidation _____

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) _____

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Division.



CERTIFICATION

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

Jerry McHugh
Name
Jerry McHugh

Position
Well Site Coordinator

Company
Dugan Production Corp.

Date
5-18-82

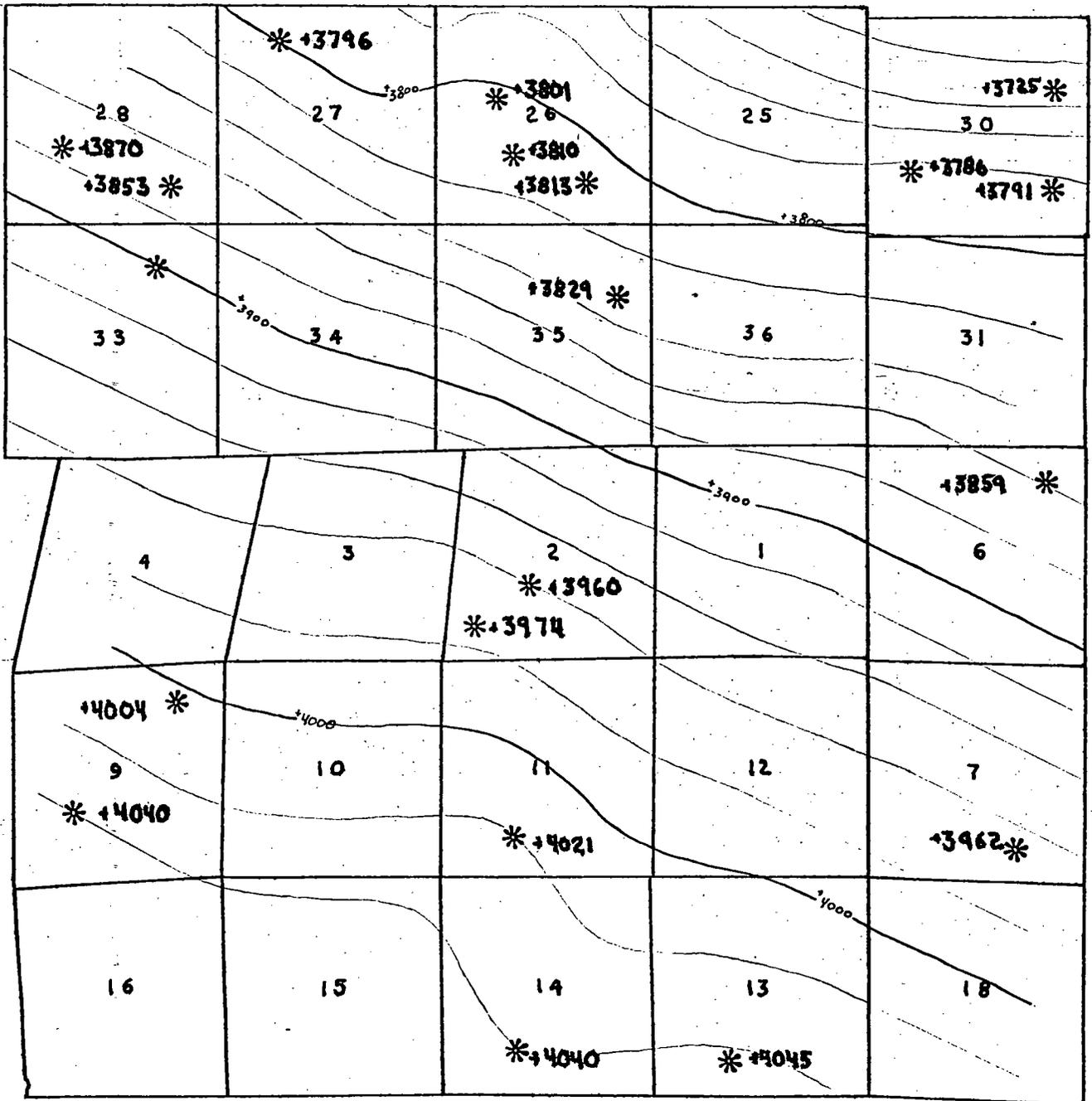
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed
5-12-82

Registered Professional Engineer and/or Land Surveyor
Thomas A. Dugan
Thomas A. Dugan

Certificate No. _____

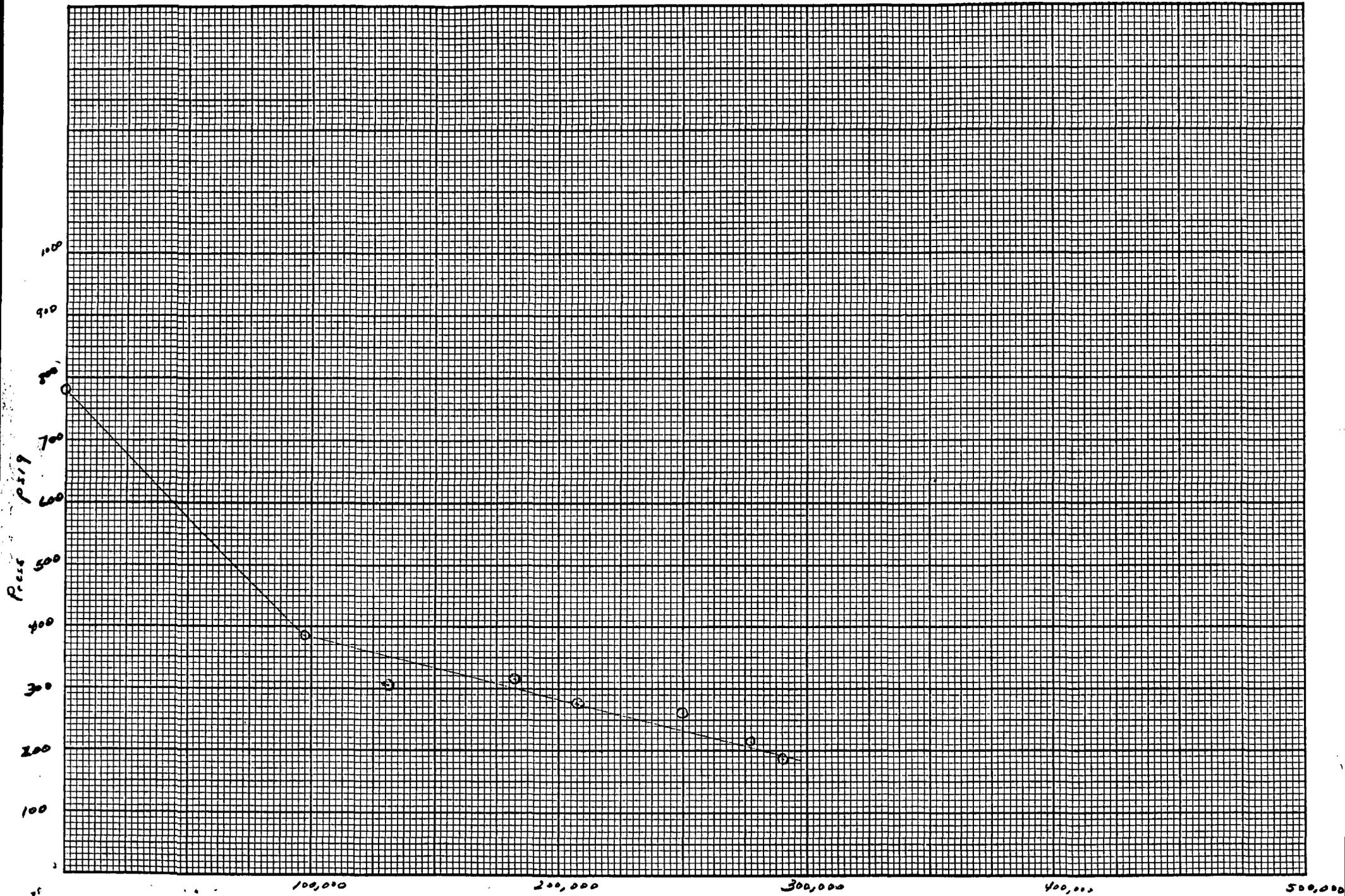
R-9-W | R-8-W



T
28
N
T
27
N

Pictured Cliffs Structure Map
C.I. = 20'

Pressure Decline vs Cumulative Production - Farming "D" Com. #1

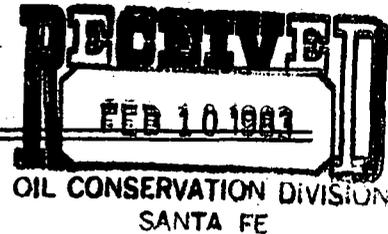


Cum. Prod - MCF

K&M
20 X 20 TO THE INCH
46 1242
MADE IN U.S.A. •
KEUFFEL & ESSER CO.



dugan production corp.



February 8, 1983

State of New Mexico
Energy and Minerals Department
Oil Conservation Division
P.O. Box 2088
State Land Office Bldg.
Santa Fe, NM 87501

Attn: Joe D. Ramey, Director

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New Mexico Oil Conservation Division
February 8, 1983
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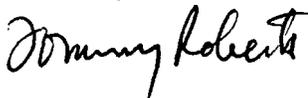
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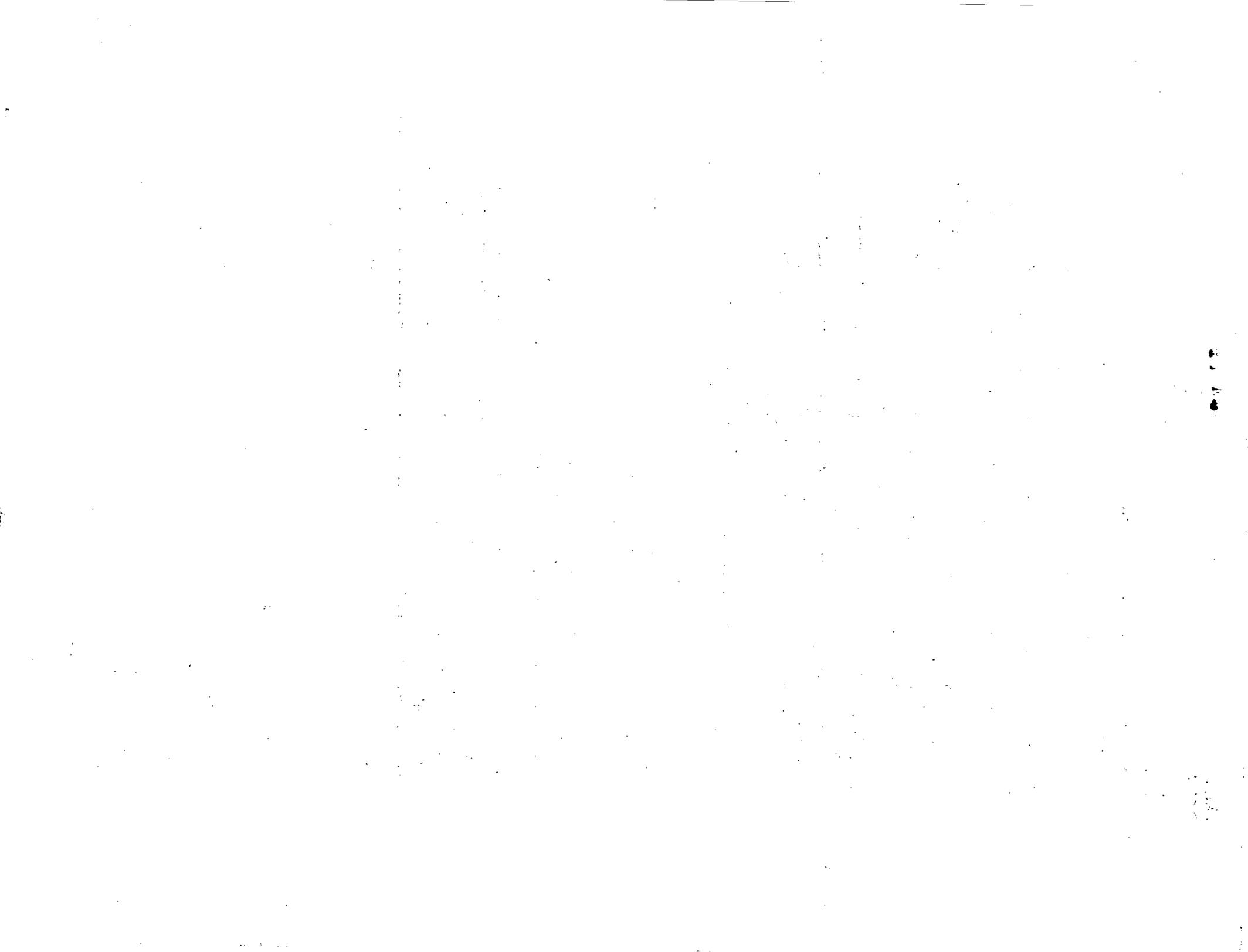
Sincerely,



Tommy Roberts
General Counsel

TR:nw

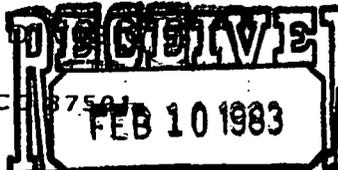
enc.



OIL CONSERVATION DIVISION

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501



Form C-101
Revised 10-1-78

Indicate Type of Lease

STATE FEE

State Oil & Gas Lease No.

1-1200-1

NO. OF COPIES RECEIVED	
DISTRIBUTION	
SANTA FE	
FILE	
U.S.G.S.	
LAND OFFICE	
OPERATOR	

30845 OIL CONSERVATION DIVISION SANTA FE

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work
 b. Type of Well DRILL DEEPEN PLUG BACK
 OIL WELL GAS WELL OTHER SINGLE ZONE MULTIPLE ZONE

2. Name of Operator
DUGAN PRODUCTION CORP.

3. Address of Operator
P O Box 208, Farmington, NM 87401

4. Location of Well
UNIT LETTER K LOCATED 1725 FEET FROM THE South LINE
AND 1850 FEET FROM THE West LINE OF SEC. 2 TWP. 27 N RGE. 9 W NMPM

7. Unit Agreement Name

8. Farm or Lease Name
Farming D Com

9. Well No.
1R

10. Field and Pool, or Wildcat
So. Blanco Pictured Cliffs

12. County
San Juan

19. Proposed Depth
2475'

19A. Formation
Pictured Cliffs

20. Rotary or C.T.
Rotary

21. Elevations (Show whether DF, RT, etc.)
6210' GL

21A. Kind & Status Plug. Bond
State wide

21B. Drilling Contractor
Morrow

22. Approx. Date Work will start
5-20-82

PROPOSED CASING AND CEMENT PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
8-3/4"	7"	20#	100'	50 cu.ft.	surface
5"	2-7/8"	6.5#	2475'	300 cu.ft.	surface

Plan to drill well with minimum mud, using slim hole technique to test the Pictured Cliffs Formation. Plan to set 2-7/8" tubing for casing thru the formation, selectively perforate, frac, clean out after frac, run 1 1/4" tubing, and complete well.

APPROVAL VALID
FOR 90 DAYS UNLESS
DRILLING COMMENCED,

EXPIRES November 18, 1982



IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM; IF PROPOSAL IS TO DEEPEN OR PLUG BACK, GIVE DATA ON PRESENT PRODUCTIVE ZONE AND PROPOSED NEW PRODUCTIVE ZONE. GIVE BLOWOUT PREVENTER PROGRAM, IF ANY.

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

Thomas A. Dugan Title Petroleum Engineer Date 5-18-82

(This space for State Use)

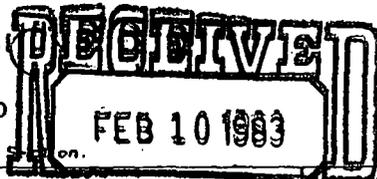
SUPERVISOR DISTRICT 3

MAY 18 1982

APPROVED BY Jack T. Ray TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

BOP required



Operator: **DUGAN PRODUCTION CORP.** Lease: **Farming District** Oil Conservation Division No. **1R**

Unit Letter: **K** Section: **2** Township: **27 North** Range: **9 West** County: **San Juan**

Actual Footage Location of Well: **1725** feet from the **South** line and **1850** feet from the **West** line

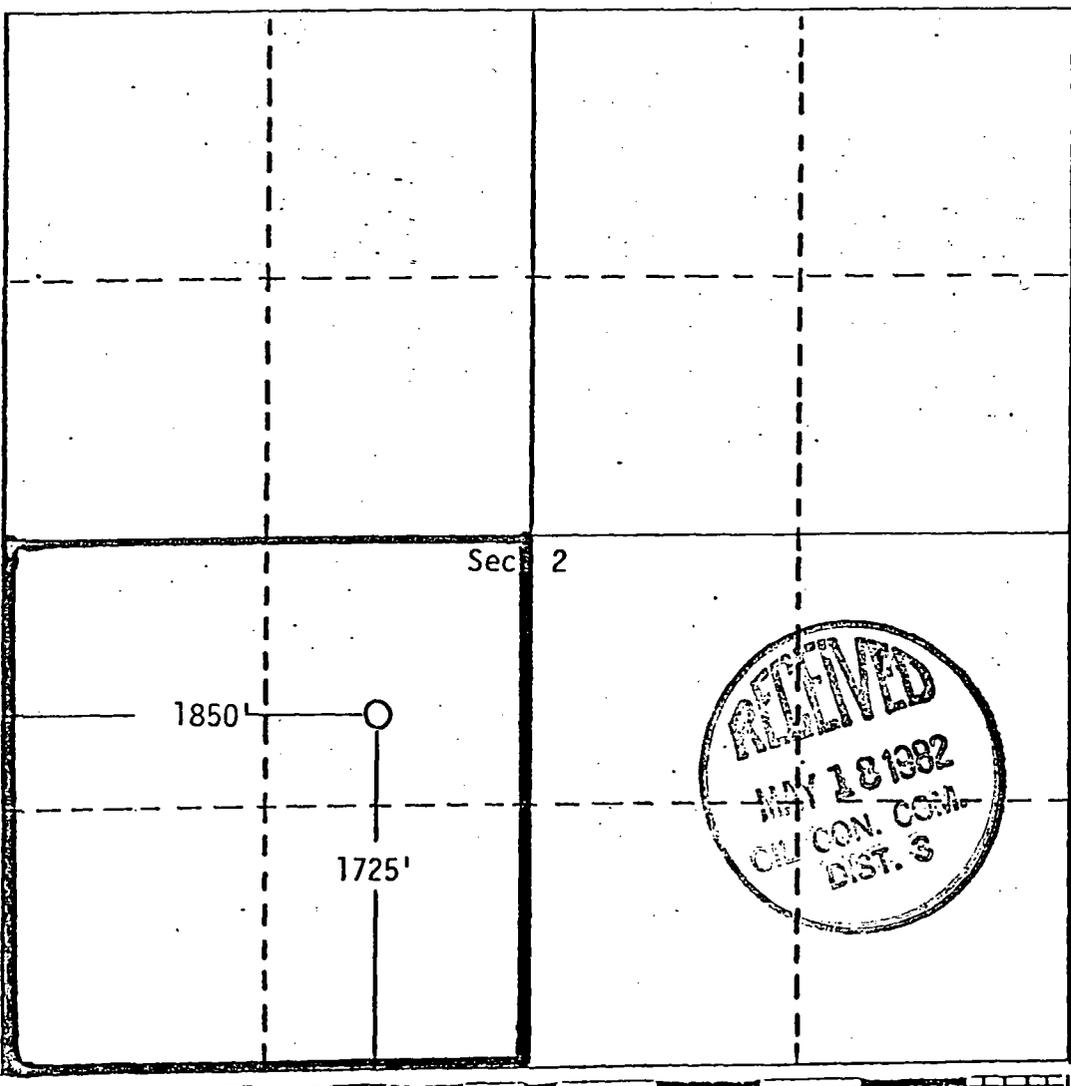
Ground Level Elev. **6210** Producing Formation **Pictured Cliffs** Pool **So. Blanco** Dedicated Acreage: **160** Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
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Yes No If answer is "yes," type of consolidation _____

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) _____

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CERTIFICATION

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

Name: **Jerry McHugh**

Position: **Well Site Coordinator**

Company: **Dugan Production Corp.**

Date: **5-18-82**

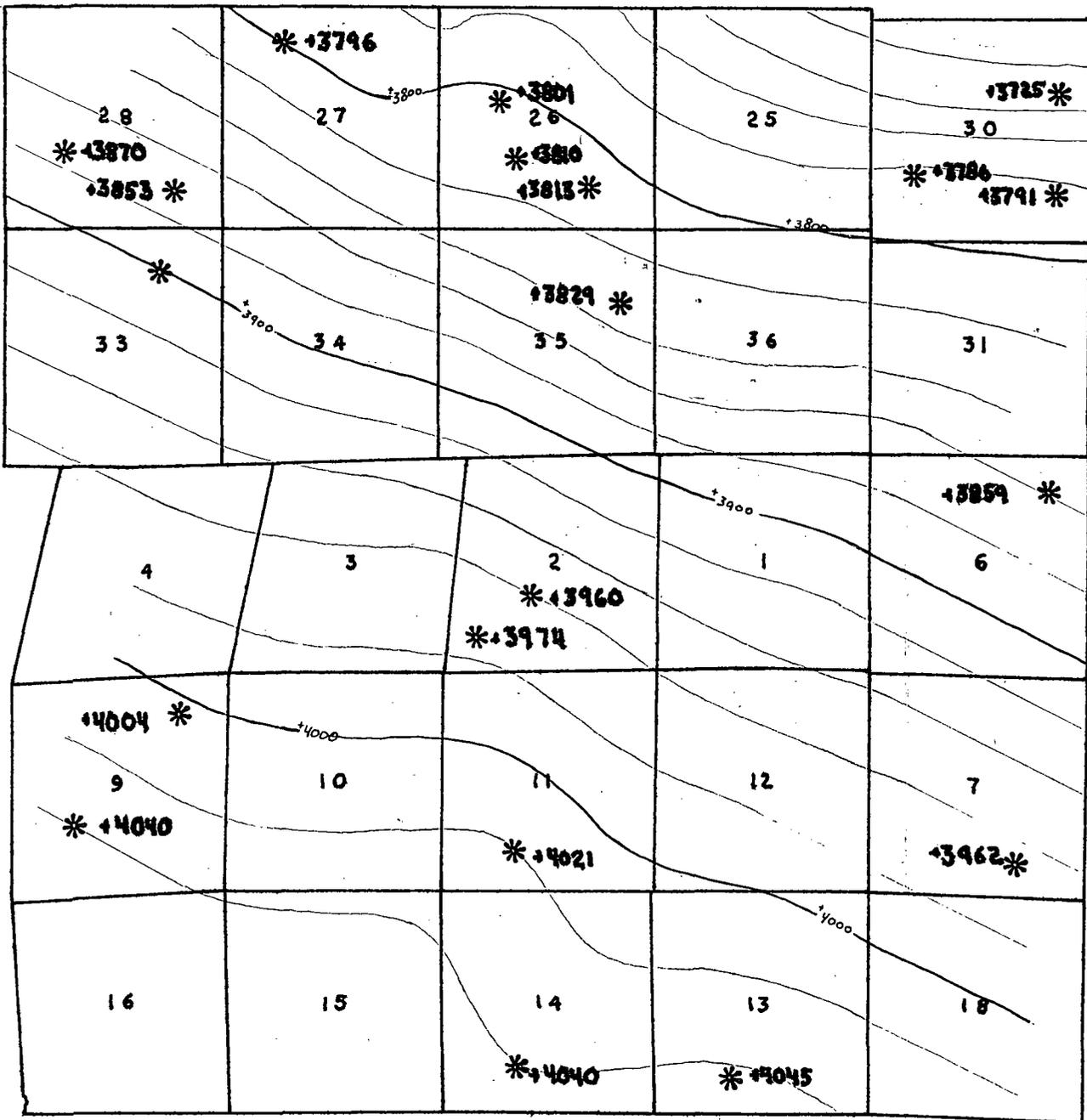
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed: **5-12-82**

Registered Professional Engineer and/or Land Surveyor: **Thomas A. Dugan**

Certificate No.: **NM 2373 PE/LS**

R-9-W | R-8-W



Pictured Cliffs Structure Map
C.I. = 20'

Cum. Prod - MCF

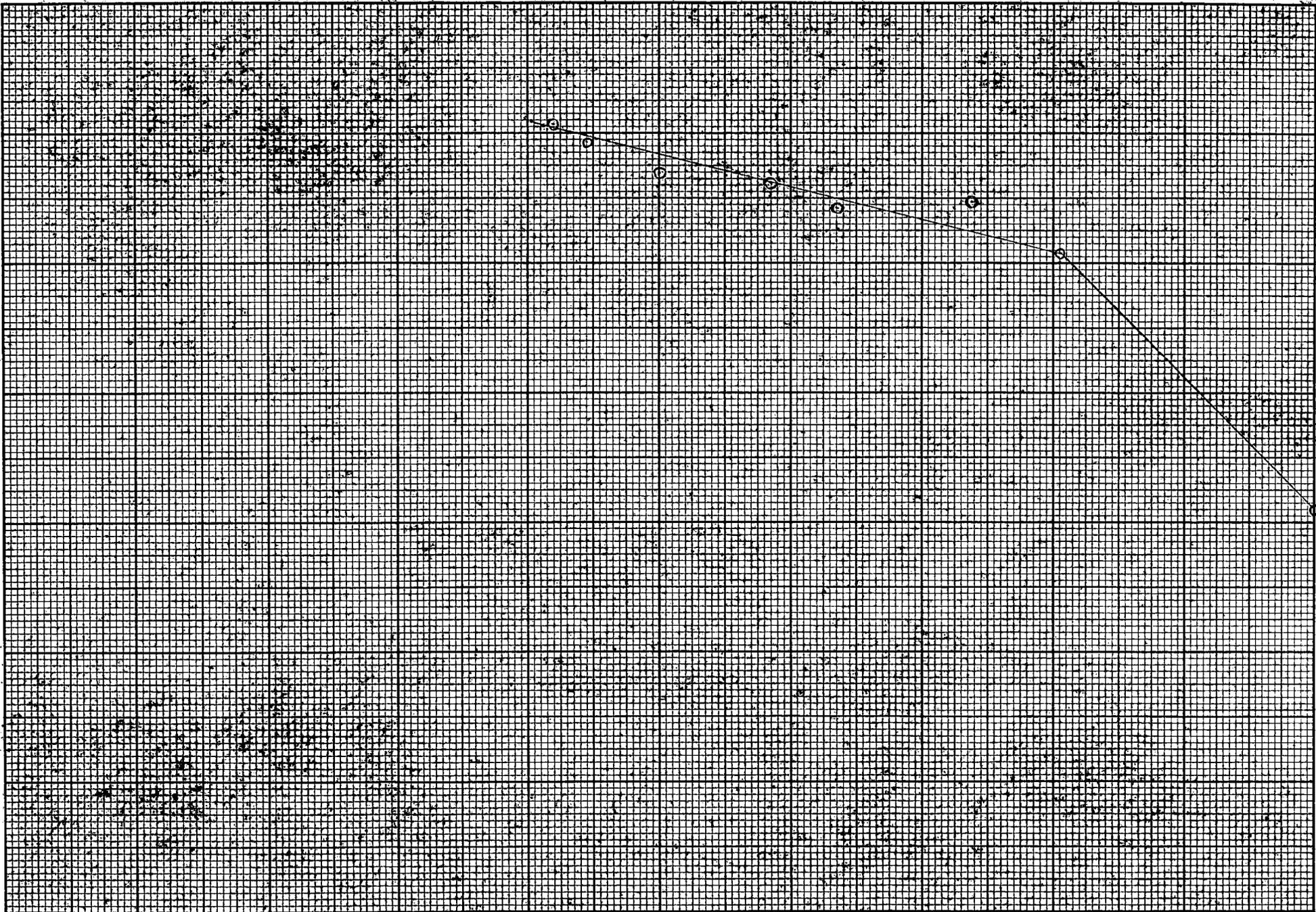
500,000

400,000

300,000

200,000

100,000



Pressure Decline vs. Cumulative Production - Farming "D" Com. #1