

Application of Northwest
Pacification Corporation for a triple gas
completion of its Jicarilla "W" 2-5 Well.

Case No.

1162

Application, Transcript,
Small Exhibits, Etc.

**BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO**

**IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
COMMISSION OF THE STATE OF NEW
MEXICO FOR THE PURPOSE OF
CONSIDERING:**

**CASE NO. 1162
Order No. R-618**

**IN THE MATTER OF THE APPLICATION OF
NORTHERN FURNACE CORPORATION FOR
AN ORDER AUTHORIZING A TRIPLE GAS
COMPLETION OF ITS JICARILLA "W" WELL
NO. 2-5 LOCATED IN THE NW/4 SE/4 OF
SECTION 5, TOWNSHIP 28 NORTH, RANGE
5 WEST, NEPN, RIO ARriba COUNTY, NEW
MEXICO.**

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9:00 o'clock a.m. on October 17, 1956, at Santa Fe, New Mexico, before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission."

Now, on this 13th day of November, 1956, the Commission, a quorum being present, having considered the application, the evidence adduced, and being fully advised in the premises,

FINDS:

(1) That due notice of the time and place of hearing and the purpose thereof having been given as required by law, the Commission has jurisdiction of this case and the subject matter thereof.

(2) That applicant is the operator of the Jicarilla "W" Well No. 2-5, located 900 feet from the North line and 1650 feet from the East line of Section 5, Township 28 North, Range 5 West, NEPN, Rio Arriba County, New Mexico.

(3) That the said Jicarilla "W" Well No. 2-5 has been completed to a total depth of 7678 feet.

(4) That the said Jicarilla "W" Well No. 2-5 is not located within the present horizontal boundaries of any designated gas pool. However, it is governed by the Special Rules and Regulations for the Blanco-Mesaverde Pool since it is situated within one (1) mile of said pool.

(5) That the applicant proposes to complete the said Jicarilla "W" Well No. 2-5 in the Pictured Cliffs, Mesaverde and Dakota formations in the manner outlined in the application.

(6) That the mechanics of the proposed triple completion are feasible and in good practice.

(7) That the applicant will recover gas by means of the proposed triple completion that would not otherwise be recovered since it might not be commercially feasible to make a single completion in any of the three producing horizons.

IT IS THEREFORE ORDERED:

(1) That the applicant, Northwest Production Corporation, be and the same is hereby authorized to complete its Jicarilla "W" Well No. 2-5, located in the NW/4 NE/4 of Section 5, Township 26 North, Range 5 West, NMPN, in the following manner:

(a) Perforate the liner opposite the Dakota formation and produce the gas therefrom through 2 7/8 inch diameter tubing to the top of the Mesaverde formation and thence through a cross-over assembly into 1 1/4 inch diameter tubing which is inside the 2 7/8 inch diameter tubing to the surface;

(b) Perforate the liner opposite the Mesaverde formation and produce the gas therefrom through the tubing-tubing annulus to the surface;

(c) Perforate the casing opposite the Pictured Cliffs formation and produce the gas therefrom through 1 1/4 inch diameter tubing to the surface;

(d) Production packers shall be set near the top of the Mesaverde formation and near the top of the Dakota formations.

PROVIDED HOWEVER: That upon the actual triple completion of said subject well, applicant shall submit to the district office of the Commission in which the subject well is located, Form C-184, Form C-116 and Form C-122 for each pool, outlining the information required on these forms by existing Rules and Regulations.

PROVIDED HOWEVER: That subject well shall be completed and thereafter produced in such a manner that there will be no commingling of gas within the well bore, either within or outside the casing, from any of the separate strata, and

PROVIDED FURTHER: That the gas produced from each zone or stratum shall be metered and reported separately.

PROVIDED FURTHER: That the subject well shall be equipped in such a way that reservoir pressures may be determined separately for each of the three specified strata and further be equipped with all necessary connections required to permit recording meters to be installed and used at any time as may be required by the Commission or its representatives in order that the natural gas from each separate stratum may be accurately measured and the gas-distillate ratio thereof be determined and

-3-

Case No. 1162
Order No. R-918

PROVIDED FURTHER, That the operator-applicant, shall make any and all tests, including segregation tests and packer leakage tests on completion and annually thereafter during the annual Deliverability Test of the Blanco-Mesaverte Pool, but not excluding other tests and/or determinations at any convenient time and in such manner as deemed necessary by the Commission; the original and all subsequent tests shall be witnessed by representatives of offset operators if any there be at their election, and the results of each test properly attested to by the applicant herein and all witnesses, and shall be filed with the Commission within fifteen (15) days after the completion of such tests, and that the operator shall submit a packer setting affidavit within fifteen (15) days after completion, after remedial work, or whenever the packer is disturbed, and,

PROVIDED FURTHER, That upon the actual triple completion of the subject well, applicant shall submit to the Commission, a diagrammatic sketch of the mechanical installation which was actually used to complete and produce the seal between the strata and a special report of production, gas-distillate and reservoir pressure determinations of each producing zone or stratum immediately following completion.

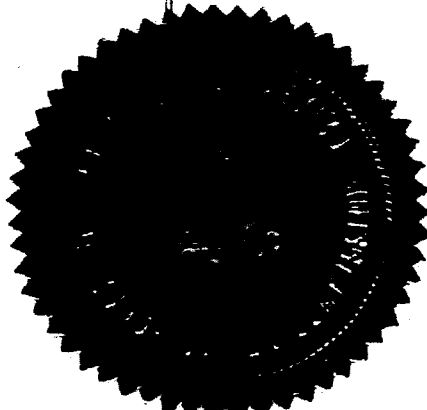
IT IS FURTHER ORDERED: That jurisdiction of this cause is hereby retained by the Commission for such further order or orders as may seem necessary or convenient for the prevention of waste and/or protection of correlative rights. Upon failure of applicant to comply with any requirement of this order after proper notice and hearing, the Commission may terminate the authority hereby granted and require applicant or its successors and assigns to limit its activities to regular single-zone production in the interests of conservation.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION


JOHN F. SIMS, Chairman


E. H. WALKER, Member


A. L. PORTER, Jr., Member & Secretary



OIL CONSERVATION COMMISSION

P. O. BOX 871

SANTA FE, NEW MEXICO

November 20, 1956

**Mr. W. R. Johnston
Northwest Production Corporation
530 Simms Building
Albuquerque, New Mexico**

Dear Sir:

**We enclose two copies each of Orders R-917 and R-918
issued November 13, 1956, by the Oil Conservation Commission in
Cases 1161 and 1162, which were heard on October 17, 1956.**

Very truly yours,

**A. L. Porter, Jr.
Secretary-Director**

**jh
encls.**

**C
O
P
Y**

OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

5

CASE

1162

Date

10/4/56

Hearing Date

10/17/56

My recommendations for an order in the above numbered cases are as follows:

OK to write approval of
Triple Completion.

PC

2 1/2 casing to pc
perf @ pc to run
through small D
tubing

MC

2 1/2 casing @ MC - to
run through tubing
~~run through tubing annulus~~

Dakota

perf 5 1/2 line to run top of MC through long D that ad
through s.d. tubing inside
Casing tubing

pack. line holes for

1. on comp. w/ 15 day

2. on comp. w/ 15 day
~~2. on comp. w/ 15 day~~

Package setting off on
1. Comp. w/ 15 day
2. Discharge
3. run

Warren W. Mankin
Staff Member

MAIN OFFICE

NORTHWEST PRODUCTION CORPORATION

ALBUQUERQUE, NEW MEXICO

1956 SEP 18 AM 10:04

September 18, 1956

REPLY TO:
820 SINKE BUILDING
ALBUQUERQUE, NEW MEXICO

Oil Conservation Commission
State of New Mexico
P. O. Box 871
Santa Fe, New Mexico

exc to Rule 112(A)

Attention: Mr. A. L. Porter

Gentlemen:

Northwest Production Corporation respectfully requests a hearing on October 17, 1956, before the New Mexico Oil Conservation Commission for the purpose of considering the completion of Northwest Production Corporation's Well "W" 2-5 in the Pictured Cliffs, Mesaverde and Dakota formations.

Well "W" 2-5 is located 990 feet from the North line and 1650 feet from the East line in the NW/4 of the NE/4 of Section 5, T26N, R5W, Rio Arriba County, New Mexico. Copy of this request for hearing is being furnished owners of mineral rights to offsetting acreage, namely:

El Paso Natural Gas Company, Box 1492, El Paso, Texas
Humble Oil & Refining Company, Box 1600, Midland, Texas
Southern Petroleum Exploration, Inc., Box 192, Sistrerville, W. Virginia

Tentative approval for dually completing well "W" 2-5 in the Pictured Cliffs and Mesaverde formations was granted July 20, 1956, by Mr. Emory C. Arnold. In order to test for additional reserves, the well has been drilled to total depth of 7678 feet with 7-5/8" OD intermediate casing cemented at 3391 feet and 5-1/2" OD production liner hung at 3283 feet and cemented at total depth. Top of the liner was then squeeze cemented and tested.

The procedure for completing well "W" 2-5 to produce the three formations would be as follows:

1. Selectively perforate the 5-1/2" casing and fracture the Dakota formation in two zones.
2. Set a temporary bridge plug at 5455 feet, selectively perforate the 5-1/2" casing and fracture the Mesaverde formation in three zones.

*Ant
copy
I pocket
to
Bill
Johnson
on 10/11*

3. Set a temporary bridge plug at 3280 feet, perforate the 7-5/8" casing and fracture the Pictured Cliffs formation.
4. Drill out temporary bridge plugs and clean out to total depth.
5. Set Baker packer on wire line above the Dakota formation at approximately 7462 feet.
6. Run 2-7/8" OD EUE tubing set at approximately 7467 feet with anchor type packer set above the Mesaverde formation at approximately 4800 feet. An Otis side-door choke will be run below the anchor packer at approximately 4830 feet.
7. 1-1/4" OD non-upset tubing will be run inside the 2-7/8" tubing and set in the side-door choke at 4830 feet with a pack-off to separate the 1-1/4" tubing from the 1-1/4" x 2-7/8" tubing-tubing annulus, thereby allowing the Dakota formation to flow through the 1-1/4" tubing and the Mesaverde to flow through the 1-1/4" x 2-7/8" tubing-tubing annulus.
8. A second string of 1-1/4" OD non-upset tubing will be run inside the 2-7/8" tubing x 7-5/8" casing annulus to a depth of approximately 3150 feet to produce the Pictured Cliffs formation.
9. It is planned to use a dual-string tree which is so arranged that pressures may be obtained on all three formations.

Completion of well "W" 2-5 in the manner outlined will permit Northwest Production Corporation to produce the three formations from one well, thereby effecting considerable reduction in drilling costs.

Very truly yours,

NORTHWEST PRODUCTION CORPORATION

W. R. Johnston
W. R. Johnston, Manager
Production Operations

WRJ/RP/nt
In triplicate
Encl.

cc: El Paso Natural Gas Company
Humble Oil & Refining Company
Southern Petroleum Exploration, Inc.
U. S. Geological Survey
Oil Conservation Commission, Aztec, N. M.

R 5 W				
El Paso Nat'l	So. Petr. Expl.	PNW	El Paso Nat'l	T 27 N
31	8 ☀	32 NWP	33	
NWP	NWP	0 2-5	Humble 0 2	
6	5		4	
NWP	NWP		Humble 3 0	T 26 N
7	8		9	
0 1-7				

LOCATION AND OWNERSHIP PLAT FOR
 "W" WELL 2-5 IN SECTION 5 OF
 T 26 N AND R 5 W WITH WORKING
 INTEREST RIGHTS TO BASE OF
 DAKOTA FORMATION

NORTHWEST PRODUCTION CORPORATION
ALBUQUERQUE, NEW MEXICO

APPLICATION FOR TRIPLE GAS COMPLETION
 OF "W" WELL 2-5 IN PICTURED CLIFFS,
 MESAVERDE AND DAKOTA FORMATIONS

RIO ARRIBA COUNTY
 NEW MEXICO

CONTRACT # 152

DRAWN: W H MCGAHEY
 APPROVED: RAY PHILLIPS

SCALE 1" = 3000'
 DATE: 9-18-56

DOCKET: REGULAR HEARING OCTOBER 17, 1956

Oil Conservation Commission 9:00 a.m., Mabry Hall, State Capitol, Santa Fe

- ALLOWABLE: (1) Consideration of the oil allowable for November, 1956.
- (2) Consideration of the allowable production of gas from the six prorated pools in Lea County, New Mexico, for November, 1956; also consideration of the allowable production of gas from the six prorated pools in San Juan and Rio Arriba Counties, New Mexico, for November, 1956.

NEW CASES

CASE 1161:

Application of Northwest Production Corporation for an order authorizing a triple gas completion in the SW/4 of Section 7, Township 26 North, Range 5 West, Rio Arriba County, New Mexico, in exception to Rule 112-A of the New Mexico Oil Conservation Commission Rules and Regulations. Applicant, in the above-styled cause seeks an order granting permission to effect a triple gas completion of its Jicarilla "W" 1-7 Well located 800 feet from the South line and 920 feet from the West line of Section 7, Township 26 North, Range 5 West, Rio Arriba County, New Mexico. The proposed producing horizons are the South Blanco-Pictured Cliffs Gas Pool and the Mesaverde and Dakota formations of two presently undesignated gas pools in the SW/4 of said Section 7. Applicant proposes to produce Pictured Cliffs gas through one small string of tubing, Dakota gas through another small string of tubing inside one larger string of tubing and Mesaverde gas through the tubing-tubing annulus.

CASE 1162:

Application of Northwest Production Corporation for an order authorizing a triple gas completion in the NE/4 of Section 5, Township 26 North, Range 5 West, Rio Arriba County, New Mexico, in exception to Rule 112-A of the New Mexico Oil Conservation Commission Rules and Regulations. Applicant, in the above-styled cause, seeks an order granting permission to effect a triple gas completion of its Jicarilla "W" 2-5 Well located 990 feet from the North line and 1650 feet from the East line of Section 5, Township 26 North, Range 5 West, Rio Arriba County, New Mexico. The proposed producing horizons are the Pictured Cliffs, Mesaverde and Dakota formation of three presently undesignated gas pools in the NE/4 of said Section 5. Applicant proposes to produce Pictured Cliffs gas through one small string of tubing, Dakota gas through another small string of tubing inside one larger string of tubing and Mesaverde gas through the tubing-tubing annulus.

CASE 1163: Application of the Oil Conservation Commission of the State of New Mexico on its own motion for an order amending Rule 701 of the Statewide Rules and Regulations. Applicant, in the above-styled cause, seeks an order amending Rule 701 to provide, under certain conditions, for administrative approval of salt water disposal projects without the necessity of a hearing.

CASE 1164: Application of the Oil Conservation Commission of New Mexico on its own motion for an order revising the proration rules contained in the Special Rules and Regulations for all prorated gas pools in the State of New Mexico. Applicant, in the above-styled cause, seeks an order revising the proration rules in the Special Rules and Regulations for the following gas pools in San Juan, Rio Arriba and Lea Counties, New Mexico:

Aztec-Pictured Cliffs	Eumont
South Blanco-Pictured Cliffs	Jalmat
Fulcher Kutz-Pictured Cliffs	Blinebry
West Kutz-Pictured Cliffs	Tubb
Ballard-Pictured Cliffs	Justis
Blanco-Mesaverde	Byers-Queen

Applicant proposes to revise the present procedure in the following particulars:

1. Format of the Monthly Gas Proration Schedule
2. Method of determining whether a gas well is marginal.
3. Method of determining cancellable underage.
4. Method of determining when overproduced well should be shut-in.
5. Method of determining whether a well is in balance.
6. Procedure for assigning gas well allowables.

CASE 1165: Northwestern New Mexico nomenclature case calling for the extension of existing pools in San Juan and Rio Arriba Counties, New Mexico.

(a) Extension of the Tapacito-Pictured Cliffs Pool to include:

Township 25 North, Range 3 West
Section 3: W/2
Section 4: S/2
Section 9: N/2

Township 26 North, Range 3 West
Section 33: W/2

Township 26 North, Range 4 West
Section 8: All
Section 16: W/2
Section 17: E/2

(b) Extension of the South Blanco-Pictured Cliffs Pool to include:

Township 25 North, Range 4 West
Section 18: S/2

Township 25 North, Range 5 West
Section 2: N/2

Township 25 North, Range 6 West
Section 1: E/2
Section 12: N/2
Section 24: E/2

Township 26 North, Range 5 West
Section 35: S/2

Township 27 North, Range 9 West
Section 1: N/2

(c) Extension of the Otero-Pictured Cliffs Pool to include:

Township 24 North, Range 5 West
Section 16: W/2

Township 24 North, Range 6 West
Section 12: E/2

(d) Extension of the Ballard-Pictured Cliffs Pool to include:

Township 25 North, Range 8 West
Section 13: S/2

(e) Extension of the Bisti-Lower Gallup Oil Pool to include:

Township 25 North, Range 12 West
Section 5: SE/4
Section 15: SW/4

Township 25 North, Range 13 West

Section 1: NW/4

Section 12: NE/4

(f) Extension of the Blanco-Mesaverde Pool to include:

Township 30 North, Range 5 West

Section 6: All

Township 31 North, Range 5 West

Section 31: All

Township 31 North, Range 12 West

Section 7: All

Section 18: All

(g) Extension of the South Blanco-Dakota Pool to include:

Township 26 North, Range 6 West

Section 5: SW/4, NW/4

Section 6: All

Township 26 North, Range 7 West

Section 1: NE/4

CASE 1166:

Southeastern New Mexico nomenclature case calling for the extension of existing pools in Lea and Chaves Counties, New Mexico.

(a) Extension of the Baum-Wolfcamp Pool to include:

Township 14 South, Range 33 East

Section 6: W/2

(b) Extension of the Caprock-Queen Pool to include:

Township 15 South, Range 31 East

Section 3: NE/4

(c) Extension of the Crosby-Devonian Gas Pool to include:

Township 25 South, Range 37 East

Section 33: N/2

(d) Extension of the E-K Queen Pool to include:

Township 18 South, Range 33 East

Section 14: NW/4

Section 23: NE/4

DOCKET: SPECIAL COMMISSION HEARING OCTOBER 18, 1956

Oil Conservation Commission 9:00 a.m., Mabry Hall, State Capitol, Santa Fe

CASE 1103:(Rehearing)

Application of Cities Service Oil Company on rehearing of Case 1103, Order R-874 for an order granting permission to effect a single string oil-oil dual completion in the Dean-Devonian and Dean-Pennsylvanian Pools, Lea County, New Mexico. Applicant, in the above-styled cause, seeks on rehearing in Case No. 1103, Order R-874 reconsideration of the New Mexico Oil Conservation Commission's denial of its application for permission to make a single string oil-oil dual completion in the Dean-Devonian and Dean-Pennsylvanian Pools, Lea County, New Mexico; said rehearing will be restricted to the receiving of new evidence on those issues specifically raised in the application for rehearing.

DOCKET: EXAMINER HEARING OCTOBER 19, 1956

Oil Conservation Commission 10:00 a.m., Mabry Hall, State Capitol, Santa Fe

The following continued case will be heard before Warren W. Mankin, Examiner:

CASE 1120:

Application of Gunsite Butte Uranium Corporation for an unorthodox gas well location in the Tapacito-Pictured Cliffs Gas Pool in exception to Paragraph (4) of the Special Rules and Regulations for said pool as set forth in Order R-794. Applicant, in the above-styled cause, seeks an order authorizing an unorthodox location for a gas well to be drilled by applicant in the NW/4 of Section 3, Township 25 North, Range 3 West, Rio Arriba County, New Mexico.

(e) Extension of the Eumont Pool to include:

Township 19 South, Range 36 East
Section 22: E/2 SW/4

(f) Extension of the Jalmat Pool to include:

Township 22 South, Range 35 East
Section 11: SE/4

(g) Extension of the King-Devonian Pool to include:

Township 13 South, Range 37 East
Section 35: NE/4

CONTINUED CASES

CASE 1126:

Application of Rowan Oil Company for an order granting permission to make an oil-oil dual completion in the Blinebry Oil Pool and the Drinkard Oil Pool in compliance with Rule 112-A of the New Mexico Oil Conservation Commission Statewide Rules and Regulations. Applicant, in the above-styled cause, seeks an order authorizing an oil-oil dual completion in the Blinebry Oil Pool and Drinkard Oil Pool for its Cary No. 7 Well located 1874 feet from the North line and 2086 feet from the West line of Section 22, Township 22 South, Range 37 East, Lea County, New Mexico; applicant proposes to run only one string of tubing to produce the Drinkard Oil through the tubing and the Blinebry Oil through the casing-tubing annulus.

CASE 1127:

Southeastern New Mexico nomenclature case calling for the creation of a new pool in Lea County, New Mexico.

(d) Creation of a new oil pool for Tubb production, designated as the Tubb Oil Pool, and described as:

Township 21 South, Range 37 East
Section 10: SE/4 SW/4

WMM 1/29/57
ET V
Case file

NEW MEXICO
OIL CONSERVATION COMMISSION
AZTEC, NEW MEXICO

Case # 1162

RECORDED

120 East Chase
January 21, 1957

(order R-918)

Northwest Production Corporation
520 Simms Building
Albuquerque, New Mexico

Attn: Mr. W. R. Johnston

Dear Mr. Johnston:

I can't # 2-5

A packer test was conducted on your #25 well in the NW 1/4 Section 5-26N-5W on January 18, 1957 witnessed by Mr. A. R. Kendrick of our office. As you know this well is a triple completion between the Pictured Cliffs, Mesaverde and Dakota formations. During this test the Mesaverde formation was open through a 3/4" choke for three hours. The Pictured Cliffs pressure at the beginning of the test was 1047# and at the end of the test was 965#. The Dakota Shut-in pressure at the beginning of the test was 2322# and at the end of the test was 2329#. It therefore appears that there is communication between the Pictured Cliffs and Mesaverde portions of this triple completion. We therefore must direct that you begin remedial action to separate the zones within the next 15 days.

Yours very truly

Emery C. Arnold
Supervisor, District #3

ECA:ks

cc: A. L. Porter
OCC, Santa Fe, N.M.

R 6 W		R 5 W	
Pubco	Lowry	NWP	NWP 2-5
		6	5
Lowry	NWP	NWP	
12 2-14-189 ☼	7 1-7 ○	8	
Lowry	Delhi & Atlantic	Delhi & Atlantic	
13 1-c Scott ☼	19	17	

T
26
N

EX #
1161-1162

LOCATION AND OWNERSHIP PLAT FOR
"W" WELL 1-7 IN SECTION 7 OF
T 26 N AND R 5 W WITH WORKING
INTEREST RIGHTS TO BASE OF
DAKOTA FORMATION

NORTHWEST PRODUCTION CORPORATION
ALBUQUERQUE, NEW MEXICO

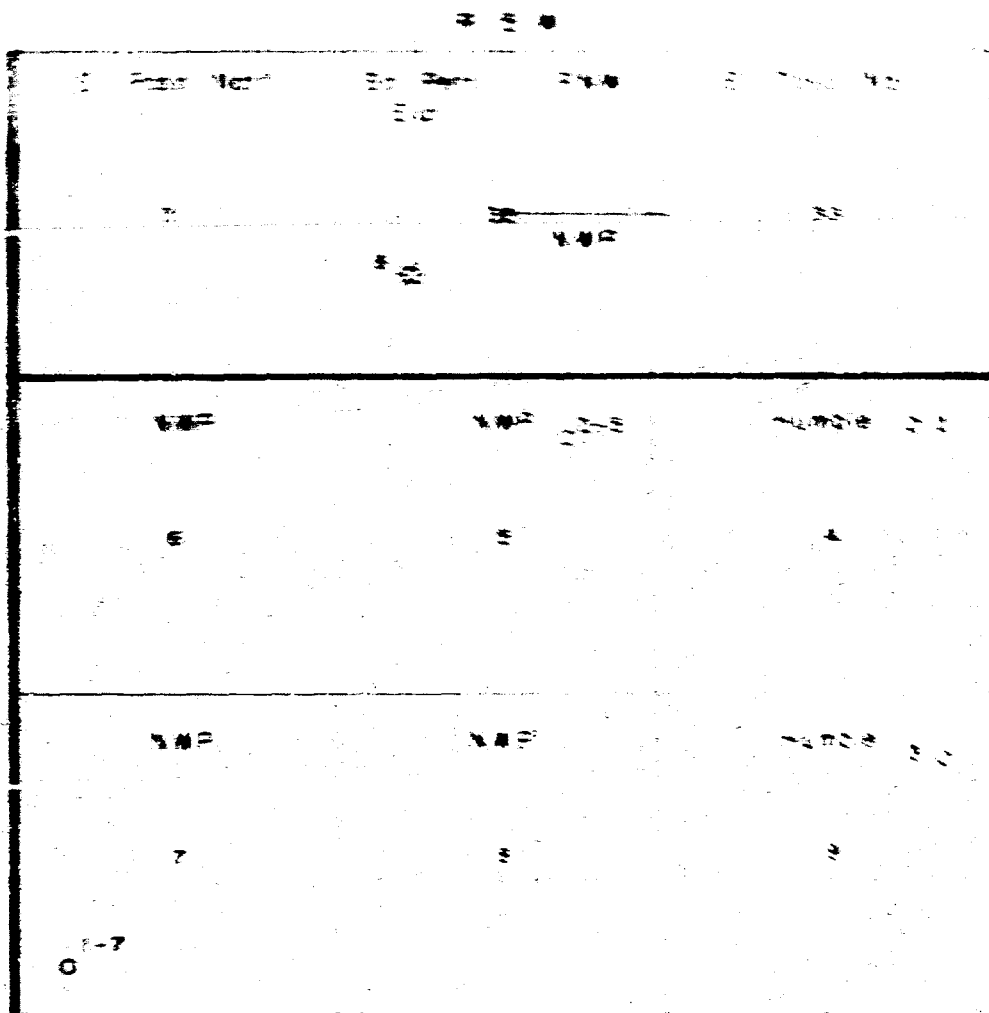
APPLICATION FOR TRIPLE GAS COMPLETION
OF "W" WELL 1-7 IN PICTURED CLIFFS,
MESAVERDE AND DAKOTA FORMATIONS

P.O. ARRIBA COUNTY
NEW MEXICO

CONTRACT # 152

DRAWN: W.H. MCGAHEY
APPROVED: RAY PHILLIPS

SCALE 1" = 3000'
DATE: 9-15-56



LOCATION AND OWNERSHIP PLAT FOR
WELL 2-5 IN SECTION 5 OF
T 26N AND R 5W WITH WORKING
INTEREST RIGHTS TO BASE OF
DAKOTA FORMATION

EX 1162

NORTHWEST PRODUCTION CORPORATION
ALBUQUERQUE, NEW MEXICO

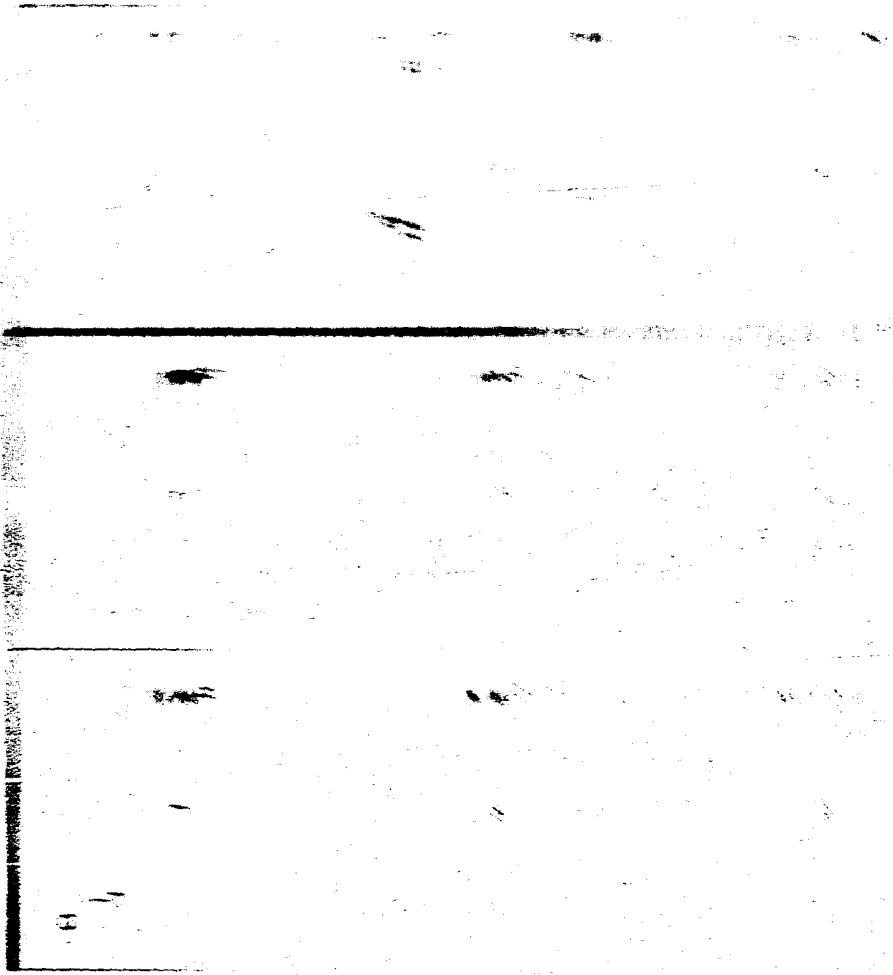
APPLICATION FOR TRIPLE GAS COMPLETION
OF WELL 2-5 IN PICTURED CLIFFS,
MESAVERDE AND DAKOTA FORMATIONS

RIO ARriba COUNTY
NEW MEXICO

CONTRACT NO. 102

DRAWN: W.H. MCGAHEY
APPROVED: RAY PHILLIPS

SCALE 1" = 5000'
DATE 8-18-88



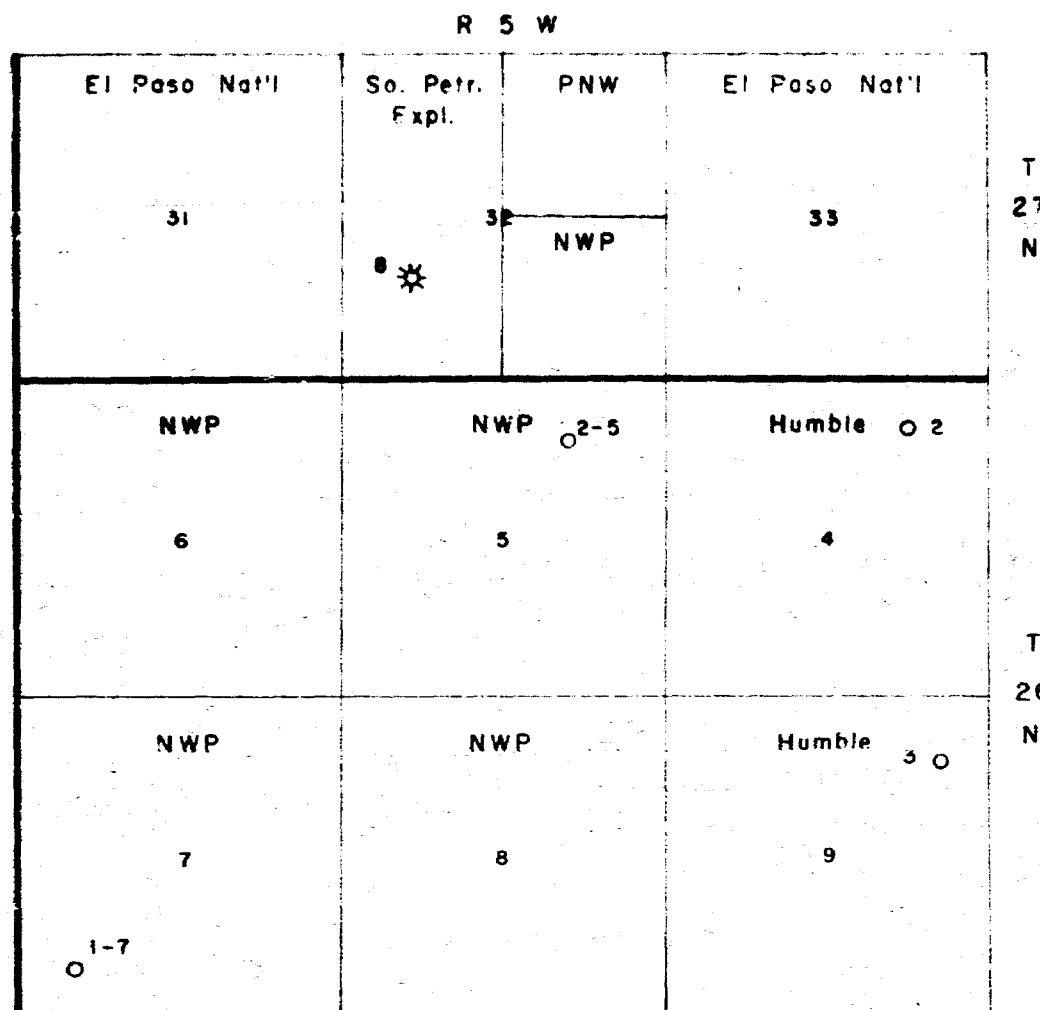
LOCATION AND OWNERSHIP PLAT FOR
WELL 2-5 IN SECTION 5 OF
T 26N AND R 5W WITH WORKING
INTEREST RIGHTS TO BASE OF
DAKOTA FORMATION

NORTHWEST QUARTER SECTION 5-11111
ALBUQUERQUE, NEW MEXICO
ACCORDING TO THE RECORD OF THE
DE A. A. L. P. OF THE STATE OF
NEW MEXICO AND THE RECORD OF THE

NEW MEXICO STATE
DEPARTMENT OF

LAND AND MINES
ALBUQUERQUE, NEW MEXICO

Case 1161 + 1162 #3

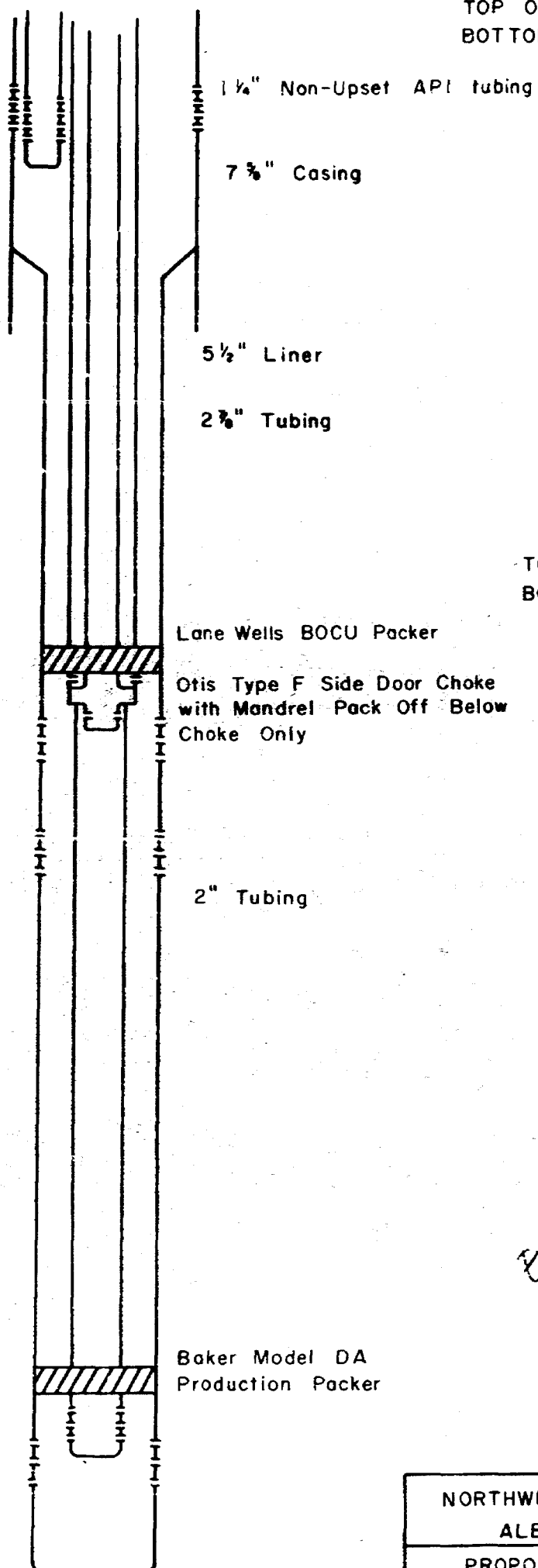


LOCATION AND OWNERSHIP PLAT FOR
"W" WELL 2-5 IN SECTION 5 OF
T 26 N AND R 5 W WITH WORKING
INTEREST RIGHTS TO BASE OF
DAKOTA FORMATION

NORTHWEST PRODUCTION CORPORATION ALBUQUERQUE, NEW MEXICO	
APPLICATION FOR TRIPLE GAS COMPLETION OF "W" WELL 2-5 IN PICTURED CLIFFS, MESAVERDE AND DAKOTA FORMATIONS	
RIO ARriba COUNTY NEW MEXICO	CONTRACT # 152
DRAWN: W H MCGAHEY APPROVED: RAY PHILLIPS	SCALE 1" = 3000' DATE: 9-18-56

PICTURED CLIFFS DATA :

TOP OF PICTURED CLIFFS — 3132'
BOTTOM OF PICTURED CLIFFS — 3184'



MESAVERDE DATA :

TOP OF MESAVERDE — 4820'
BOTTOM OF MESAVERDE — 5426'

DAKOTA DATA :

TOP OF DAKOTA — 7464'
BOTTOM OF DAKOTA — 7572'

#4
8+ 1162

NORTHWEST PRODUCTION CORPORATION
ALBUQUERQUE, NEW MEXICO

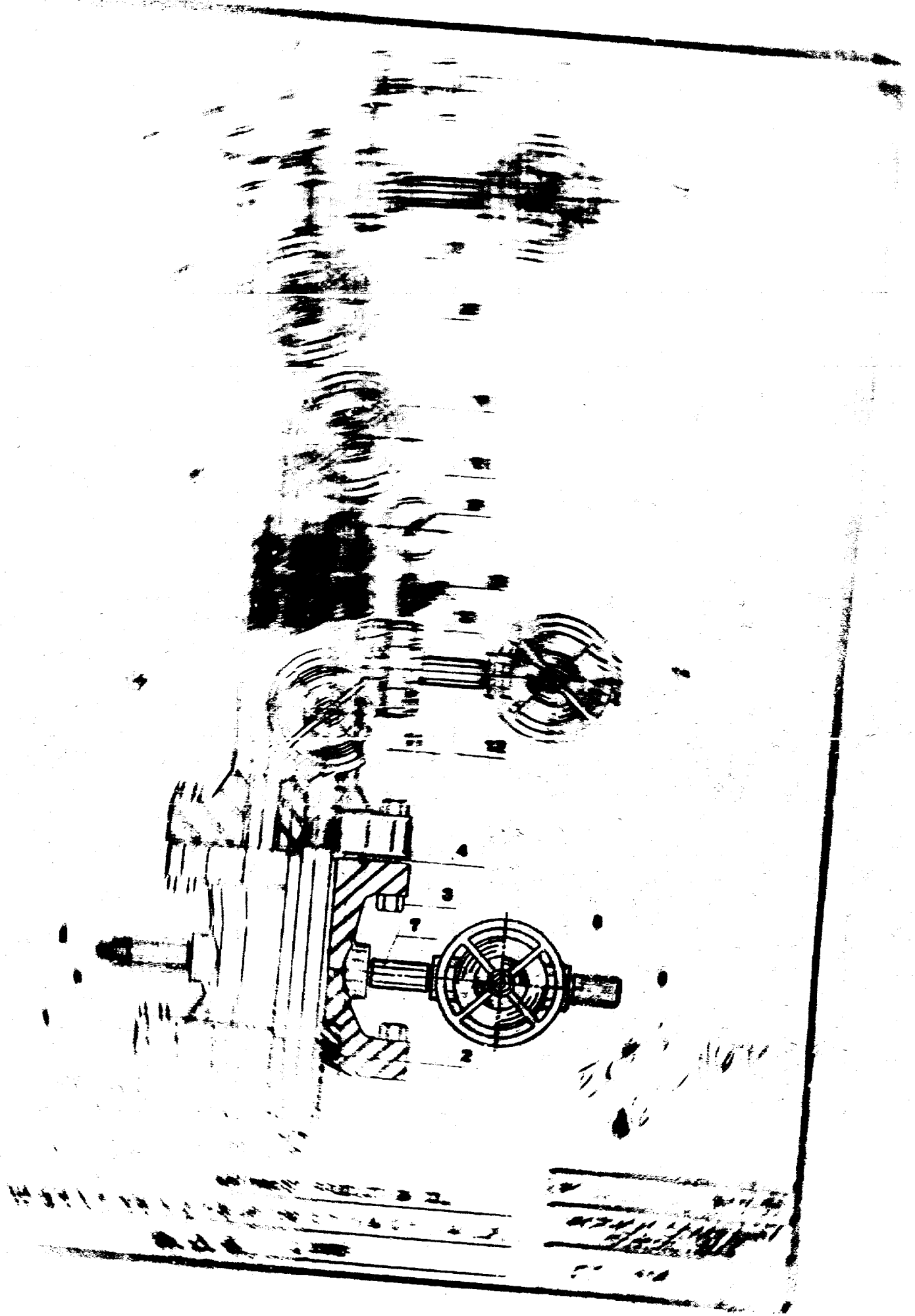
PROPOSED TRIPLE GAS COMPLETION
OF "W" WELL 2-5 IN SECTION 5
T N AND R W OF PICTURED CLIFFS,
MESAVERDE AND DAKOTA FORMATIONS

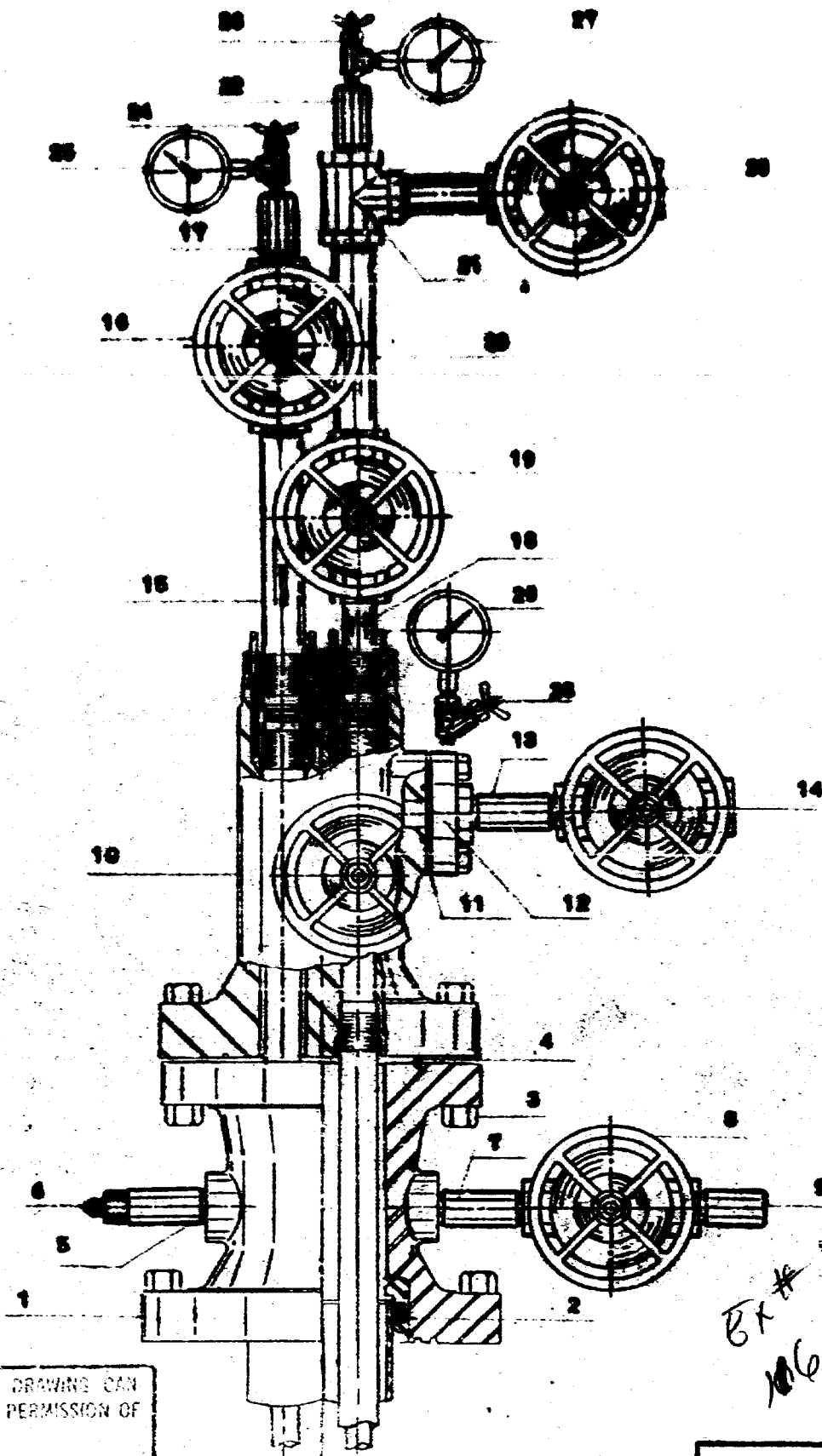
RIO ARriba COUNTY
NEW MEXICO

CONTRACT # 152

DRAWN: W.H. MCGAHEY
APPROVED: W.R. JOHNSTON

SCALE: 1/6" = 1"
DATE: 10-12-56





REPRODUCTION OF THIS DRAWING CAN
NOT BE MADE WITHOUT PERMISSION OF
MCEVOY COMPANY.
MCEVOY RESERVES ALL PATENT RIGHTS
TO THE FEATURES DISCLOSED HEREON.

NORTHWEST PRODUCTION CO.

10 3/4 X 7 5/8 X 2 7/8 UP T80 X 1 1/4 X 1 1/4 L.P.

FREE TO DRIFT

W. O. G. 2,000#

BY L. L.	9-17-56
MCEVOY COMPANY HOUSTON, TEXAS	
XT- 3104	