

CASE 2225: Application of PAN AMER.
for an oil-oil dual of its HUGH
CORRIGAN WELL NO. 2 - Lea County.

Case No.

2225

Application, Transcript,
and Exhibits, Etc.

RSM
3/24
DRAFT

RSM/esr
March 24, 1961

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

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

[Signature]
3/27
CASE No. 2225

Order No. R-1925

3-27-61
[Signature]
3/27
APPLICATION OF PAN AMERICAN PETROLEUM
CORPORATION FOR AN OIL-OIL DUAL COMPLE-
TION IN THE WANTZ-ABO POOL AND IN THE
BRUNSON-ELLENBURGER POOL, LEA COUNTY,
NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on March 22, 1961, at Santa Fe, New Mexico, before Elvis A. Utz, Examiner duly appointed by the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission," in accordance with Rule 1214 of the Commission Rules and Regulations.

NOW, on this _____ day of March, 1961, the Commission, a quorum being present, having considered the application, the evidence adduced, and the recommendations of the Examiner, Elvis A. Utz, and being fully advised in the premises,

FINDS:

(1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.

(2) That the applicant, Pan American Petroleum Corporation, proposes to dually complete its Hugh Corrigan Well No. 2, located in Unit I, Section 33, Township 21 South, Range 37 East, NMPM, Lea County, New Mexico, in such a manner as to permit the production of oil from the Wantz-Abo Pool and the production of oil from the Brunson-Ellenburger Pool through parallel strings of 2 3/8-inch tubing.

(3) That the mechanics of the proposed dual completion are feasible and in accord with good conservation practices.

(4) That approval of the subject application will neither cause waste nor impair correlative rights.

IT IS THEREFORE ORDERED:

That the applicant, Pan American Petroleum Corporation, is hereby authorized to dually complete its Hugh Corrigan Well No. 2, located in Unit I, Section 33, Township 21 South, Range 37 East, NMPM, Lea County, New Mexico, in such a manner as to permit the production of oil from the Wantz-Abo Pool and the production of oil from the Brunson-Ellenburger Pool through parallel strings of 2 3/8-inch tubing.

PROVIDED HOWEVER, That the applicant shall complete, operate, and produce said well in accordance with the provisions of Section V, Rule 112-A.

PROVIDED FURTHER, That the applicant shall take packer-leakage tests upon completion and annually thereafter ^{during the Gas-Oil Ratio Test Period for the} or as required by the Secretary-Director of the Commission.

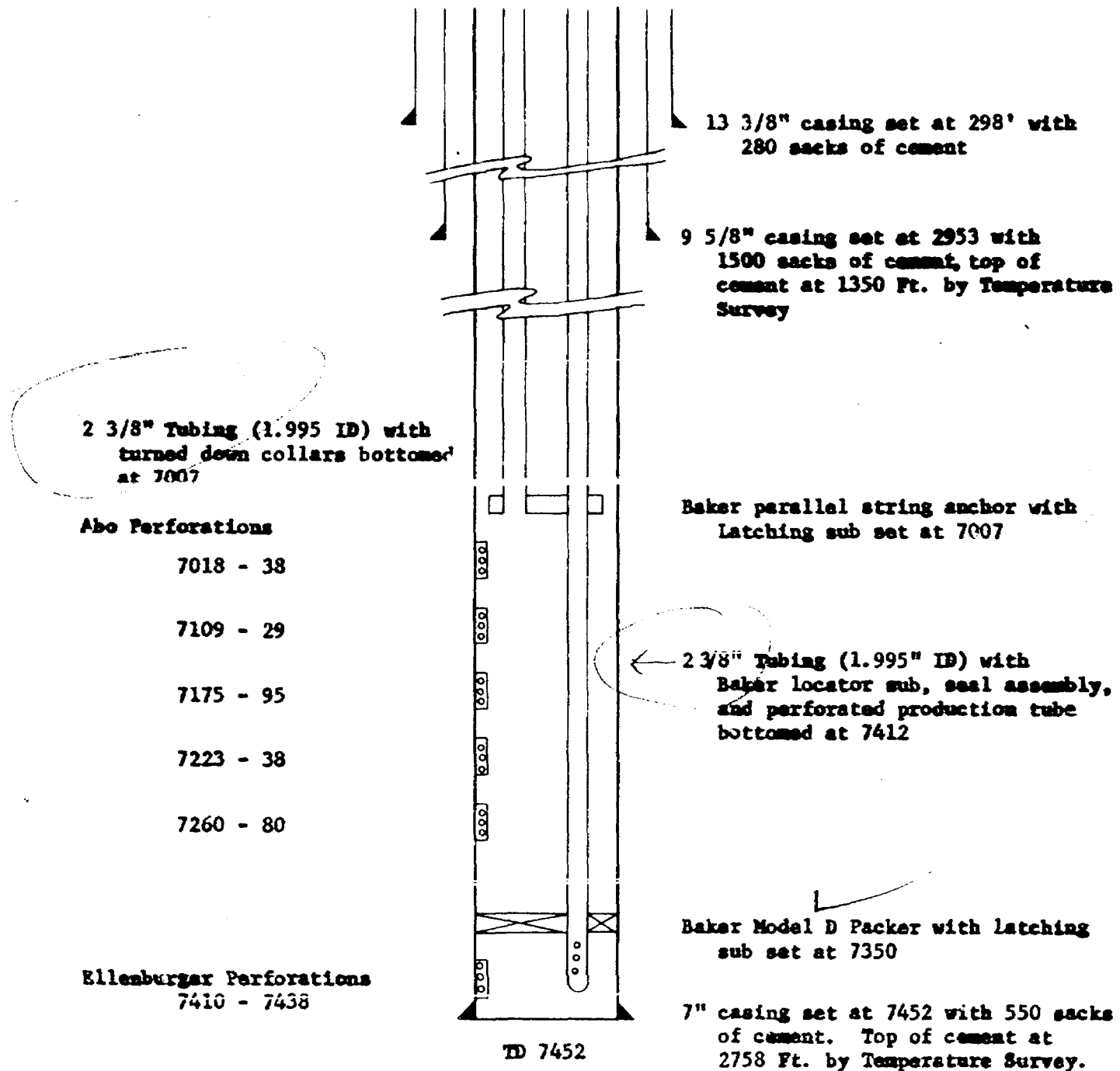
IT IS FURTHER ORDERED:

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 the protection of correlative rights; upon failure of the applicant to comply with any requirement of this order, the Commission may terminate the authority herein granted and require the applicant or its successors and assigns to limit its activities to regular single-zone production in the interest of conservation.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

Page 2225

PAN AMERICAN PETROLEUM CORPORATION
 DIAGRAMATIC SKETCH OF MECHANICAL INSTALLATION
 OIL - OIL DUAL COMPLETION
 HUGH CORRIGAN NO. 2
 BRUNSON ELLENBURGER - WANTZ ABO POOLS



Scale: None

Case 2225

PAN AMERICAN PETROLEUM CORPORATIONLubbock, Texas
February 24, 1961

File: CDF-5183-986.510.1

Subject: Application for Dual Completion
Pan American Petroleum Corporation
Hugh Corrigan Well No. 2
Brunson-Ellenburger
Wantz Abo Pools
Lea County, New MexicoMr. A. L. Porter, Jr.
Secretary and Director
New Mexico Oil Conservation Commission
P. O. Box 871
Santa Fe, New Mexico

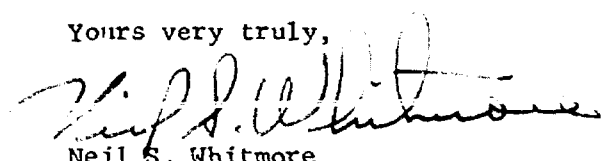
Dear Sir:

In accordance with the provisions of New Mexico Oil Conservation Commission's Statewide Rule 112-A, we enclose herewith in triplicate our Application for permission to dually complete the Pan American Hugh Corrigan well No. 2 in the Brunson-Ellenburger, Wantz Abo Field. Attached thereto, as supporting evidence, are a diagramatic sketch showing mechanical details of this completion, a plat showing the location of all wells on this lease and all offsetting wells and leases, and an electrical log of the well.

By copy of this letter to Mobil Oil Company, we are requesting a waiver of objection to this dual completion.

Our files do not indicate that any wells have been dually completed in the Brunson Ellenburger and Wantz Abo pools and we, therefore, respectfully request that you schedule this matter for public hearing on an early docket.

Yours very truly,


Neil S. Whitmore
District SuperintendentWJS:jn
Attachmentcc: Mobil Oil Co. - w/attach.
Box 2406
Hobbs, New Mexico

*Rockwell
Mead
2-10-61
WJS*

NEW MEXICO OIL CONSERVATION COMMISSION

SANTA FE, NEW MEXICO

7-3-58

APPLICATION FOR DUAL COMPLETION

Field Name Brunson Ellenburger - Wantz Abo		County Lea		Date February 24, 1961
Operator Pan American Petroleum Corporation		Lease Hugh Corrigan		Well No. 2
Location of Well	Unit I	Section 33	Township 21-S	Range 37E

1. Has the New Mexico Oil Conservation Commission heretofore authorized the dual completion of a well in these same pools or in the same zones within one mile of the subject well? YES _____ NO X

2. If answer is yes, identify one such instance: Order No. _____; Operator, Lease, and Well No.:

3. The following facts are submitted:	Upper Zone	Lower Zone
a. Name of reservoir	Wantz - Abo	Brunson Ellenburger
b. Top and Bottom of Pay Section (Perforations)	7018-7038 7109-7129 7175-7195	7223-7238 7260-7280 7410-7438
c. Type of production (Oil or Gas)	Oil	Oil
d. Method of Production (Flowing or Artificial Lift)	Flowing	Flowing

4. The following are attached. (Please mark YES or NO)

Yes a. Diagrammatic Sketch of the Dual Completion, showing all casing strings, including size and setting, top of cement, perforated intervals, tubing strings, including diameters and setting depth, location and type of packers and side door chokes, and such other information as may be pertinent.

Yes b. Plat showing the location of all wells on applicant's lease, all offset wells on offset leases, and the names and addresses of operators of all leases offsetting applicant's lease.

No c. Waivers consenting to such dual completion from each offset operator, or in lieu thereof, evidence that said offset operators have been furnished copies of the application.*

Yes d. Electrical log of the well or other acceptable log with tops and bottoms of producing zones and intervals of perforation indicated thereon. (If such log is not available at the time application is filed, it shall be submitted as provided by Rule 112-A.)

5. List all offset operators to the lease on which this well is located together with their correct mailing address.

Mobil Oil Co. P. O. Box 2406, Hobbs, New Mexico

Pan American Petroleum Corporation, Box 268, Lubbock, Texas

6. Were all operators listed in Item 5 above notified and furnished a copy of this application? YES X NO ____ . If answer is yes, give date of such notification **February 24, 1961**

CERTIFICATE: I, the undersigned, state that I am the **District Engineer** of the **Pan American Petroleum Corp. Lubbock District**

(company), and that I am authorized by said company to make this report; and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge.

A. J. Inderrieden
A. J. Inderrieden Signature

* Should waivers from all offset operators not accompany an application for administrative approval, the New Mexico Oil Conservation Commission will hold the application for a period of twenty (20) days from date of receipt by the Commission's Santa Fe office. If, after said twenty-day period, no protest nor request for hearing is received by the Santa Fe office, the application will then be processed.

NOTE: If the proposed dual completion will result in an unorthodox well location and/or a non-standard perforation unit in either or both of the producing zones, then separate application for approval of the same should be filed simultaneously with this application.

APPLICATION FOR DUAL COMPLETION

Field Name Brunson Ellenburger - Wants Abo		County Lea		Date February 24, 1961
Operator Pan American Petroleum Corporation		Lease Hugh Corrigan		Well No. 2
Location of Well	Unit I	Section 33	Township 21-S	Range 37E

1. Has the New Mexico Oil Conservation Commission heretofore authorized the dual completion of a well in these same pools or in the same zones within one mile of the subject well? YES _____ NO X
2. If answer is yes, identify one such instance: Order No. _____ ; Operator, Lease, and Well No.:

3. The following facts are submitted:	Upper Zone	Lower Zone
a. Name of reservoir	WANTS - Abo	Brunson Ellenburger
b. Top and Bottom of Pay Section (Perforations)	7018-7038 7109-7129 7175-7195	7223-7238 7260-7280 7410-7438
c. Type of production (Oil or Gas)	Oil	Oil
d. Method of Production (Flowing or Artificial Lift)	Flowing	Flowing

4. The following are attached. (Please mark YES or NO)

- Yes a. Diagrammatic Sketch of the Dual Completion, showing all casing strings, including size and setting, top of cement, perforated intervals, tubing strings, including diameters and setting depth, location and type of packers and side door chokes, and such other information as may be pertinent.
- Yes b. Plat showing the location of all wells on applicant's lease, all offset wells on offset leases, and the names and addresses of operators of all leases offsetting applicant's lease.
- No c. Waivers consenting to such dual completion from each offset operator, or in lieu thereof, evidence that said offset operators have been furnished copies of the application.*
- Yes d. Electrical log of the well or other acceptable log with tops and bottoms of producing zones and intervals of perforation indicated thereon. (If such log is not available at the time application is filed, it shall be submitted as provided by Rule 112-A.)

5. List all offset operators to the lease on which this well is located together with their correct mailing address.

Mobil Oil Co. P. O. Box 2406, Hobbs, New Mexico

Pan American Petroleum Corporation, Box 268, Lubbock, Texas

6. Were all operators listed in Item 5 above notified and furnished a copy of this application? YES X NO ____ . If answer is yes, give date of such notification **February 24, 1961**

CERTIFICATE: I, the undersigned, state that I am the **District Engineer** of the **Pan American Petroleum Corp. Lubbock District** (company), and that I am authorized by said company to make this report; and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge.

A. J. Harrison
A. J. Harrison Signature

- * Should waivers from all offset operators not accompany an application for administrative approval, the New Mexico Oil Conservation Commission will hold the application for a period of twenty (20) days from date of receipt by the Commission's Santa Fe office. If, after said twenty-day period, no protest nor request for hearing is received by the Santa Fe office, the application will then be processed.
- NOTE: If the proposed dual completion will result in an unorthodox well location and/or a non-standard proration unit in either or both of the producing zones, then separate application for approval of the same should be filed simultaneously with this application.

NEW MEXICO OIL CONSERVATION COMMISSION

SANTA FE, NEW MEXICO

7-3-58

APPLICATION FOR DUAL COMPLETION

Field Name Brunson Ellenburger - Wants Abo		County Lea		Date February 24, 1961
Operator Pan American Petroleum Corporation		Lease Hugh Corrigan		Well No. 2
Location of Well	Unit I	Section 33	Township 21-S	Range 37E

1. Has the New Mexico Oil Conservation Commission heretofore authorized the dual completion of a well in these same pools or in the same zones within one mile of the subject well? YES _____ NO X
2. If answer is yes, identify one such instance: Order No. _____; Operator, Lease, and Well No.:

3. The following facts are submitted:	Upper Zone	Lower Zone
a. Name of reservoir	WARR - Abo	Brunson Ellenburger
b. Top and Bottom of Pay Section (Perforations)	7018-7038 7109-7129 7175-7195	7213-7238 7260-7280 7410-7438
c. Type of production (Oil or Gas)	Oil	Oil
d. Method of Production (Flowing or Artificial Lift)	Flowing	Flowing

4. The following are attached. (Please mark YES or NO)

- Yes a. Diagrammatic Sketch of the Dual Completion, showing all casing strings, including size and setting, top of cement, perforated intervals, tubing strings, including diameters and setting depth, location and type of packers and side door chokes, and such other information as may be pertinent.
- Yes b. Plat showing the location of all wells on applicant's lease, all offset wells on offset leases, and the names and addresses of operators of all leases offsetting applicant's lease.
- No c. Waivers consenting to such dual completion from each offset operator, or in lieu thereof, evidence that said offset operators have been furnished copies of the application.*
- Yes d. Electrical log of the well or other acceptable log with tops and bottoms of producing zones and intervals of perforation indicated thereon. (If such log is not available at the time application is filed, it shall be submitted as provided by Rule 112-A.)

5. List all offset operators to the lease on which this well is located together with their correct mailing address.

Mobil Oil Co. P. O. Box 2406, Hobbs, New Mexico

Pan American Petroleum Corporation, Box 258, Lubbock, Texas

6. Were all operators listed in Item 5 above notified and furnished a copy of this application? YES X NO _____. If answer is yes, give date of such notification **February 24, 1961**.

CERTIFICATE: I, the undersigned, state that I am the **District Engineer** of the **Pan American Petroleum Corp. Lubbock District** (company), and that I am authorized by said company to make this report; and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge.

A. J. Ingerliden
A. J. Ingerliden Signature

- * Should waivers from all offset operators not accompany an application for administrative approval, the New Mexico Oil Conservation Commission will hold the application for a period of twenty (20) days from date of receipt by the Commission's Santa Fe office. If, after said twenty-day period, no protest nor request for hearing is received by the Santa Fe office, the application will then be processed.
- NOTE: If the proposed dual completion will result in an unorthodox well location and/or a non-standard perforation unit in either or both of the producing zones, then separate application for approval of the same should be filed simultaneously with this application.

CASE 2225:

Application of Pan American Petroleum Corporation for an oil-oil dual completion. Applicant, in the above-styled cause, seeks an order authorizing the dual completion of its Hugh Corrigan Well No. 2, located in Unit I, Section 33, Township 21 South, Range 37 East, Lea County, New Mexico, in such a manner as to permit the production of oil from the Wantz-Abo Pool and the production of oil from the Brunson-Ellenburger Pool through parallel strings of 2 3/8-inch tubing.

CASE 2226:

Application of Pan American Petroleum Corporation for a non-standard oil proration unit and an unorthodox oil well location. Applicant, in the above-styled cause, seeks the establishment of a 51.86-acre non-standard oil proration unit in the Cha Cha-Gallup Oil Pool, San Juan County, New Mexico, consisting of Lots 9 and 10 of Section 17, plus the remaining acreage in the SE/4 of said Section 17 which lies South of the mid-channel of the San Juan River, Township 29 North, Range 14 West. Applicant seeks approval of an unorthodox oil well location in said pool at a point 310 feet from the South line and 2030 feet from the East line of said Section 17 which would serve as the unit well for the proposed non-standard proration unit.

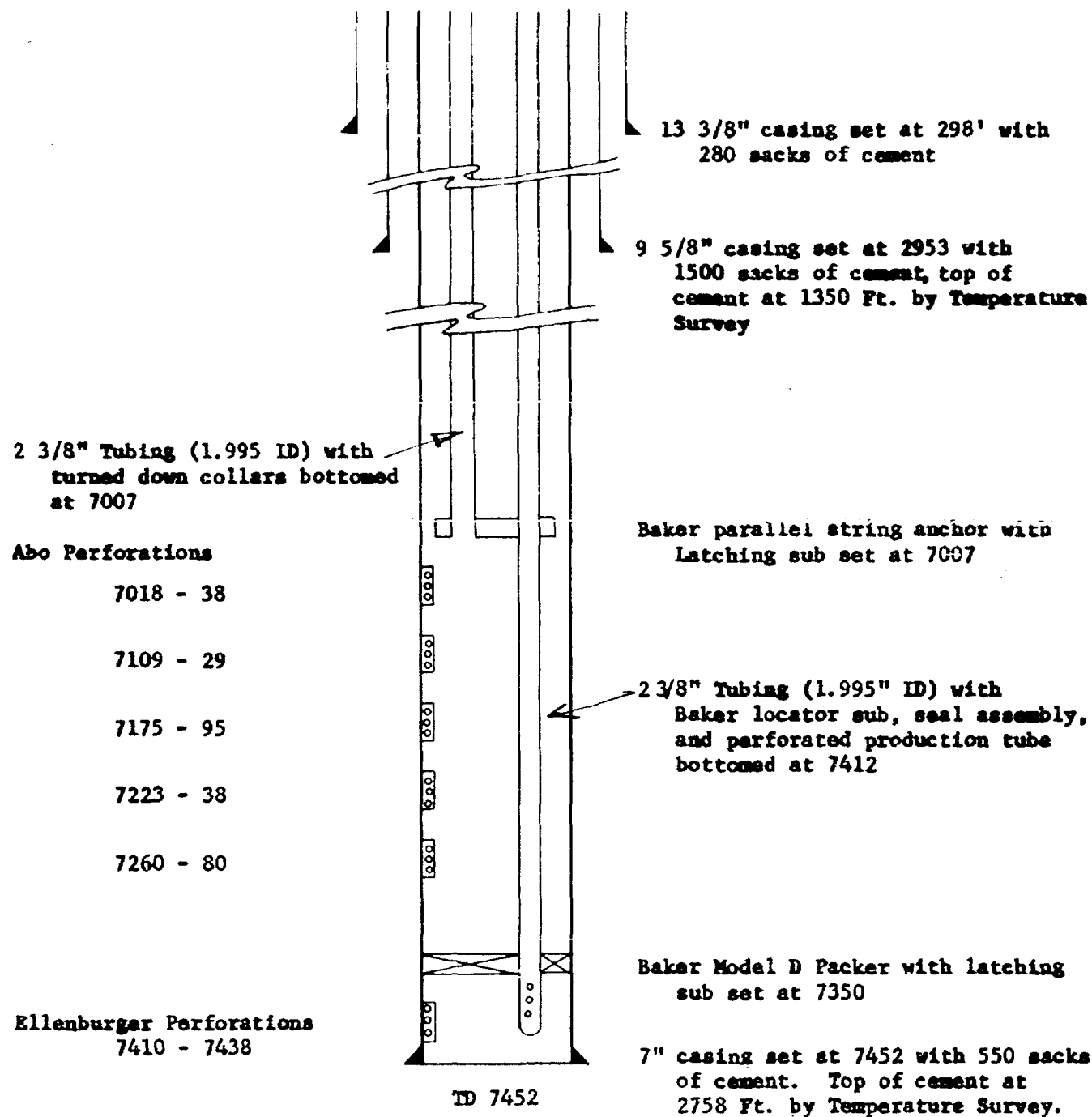
CASE 2227:

Application of Franklin, Aston & Fair, Inc. for an unorthodox oil well location. Applicant, in the above-styled cause, seeks approval of an unorthodox oil well location in the Loco Hills-Abo Pool for its McIntyre Federal Well No. 5-A at a point 990 feet from the South line and 250 feet from the East line of Section 20, Township 17 South, Range 30 East, Eddy County, New Mexico.

CASE 2228:

Application of the Oil Conservation Commission on its own motion to consider the establishment of non-standard gas proration units for the Basin-Dakota Pool in Townships 29, 30, 31 and 32 North, Ranges 4, 5, 6, 7, 8, 9, 11, 12, 13 West. Said non-standard units are necessitated by irregular sections resulting from survey corrections in the United States Public Lands Survey.

PAN AMERICAN PETROLEUM CORPORATION
 DIAGRAMATIC SKETCH OF MECHANICAL INSTALLATION
 OIL - OIL DUAL COMPLETION
 HUGH CORRIGAN NO. 2
 BRUNSON ELLENBURGER - WANTZ ABO POOLS



ATTACHMENT II

Scale: None

EVIDENCE OF SEPARATION BETWEEN THE
BRUNSON ELLENBURGER AND WANTZ ABO POOLS

1. The New Mexico Oil and Gas Engineering Committee Annual Report for 1959 indicates the following bottom hole pressure data which are indicative that separation exists between the two reservoirs:

<u>Brunson Ellenburger Pool</u>		<u>Wantz Abo Pool</u> ✓	
<u>Date</u>	<u>Avg. BHP @ -4300 Datum After 48 Hr. SI</u>	<u>Date</u>	<u>Avg. BHP @ -3750' Datum After 48 Hr. SI</u>
Dec. 1956	665.6 psi	Jan. 1956	1268.5 psi
Dec. 1957	513.8 psi	Mar. 1957	2477.0 psi
Dec. 1958	475.9 psi	July 1957	1855.5 psi
Dec. 1959	527.8 psi	Jan. 1958	1122.8 psi
		July 1958	1132.5 psi
		Jan. 1959	1090.3 psi

2. Reference to the radioactivity log of the well, Attachment IV, will indicate approximately sixty feet of detrital material between the Abo (Base of the Permian) and the top of the Ellenburger. This material is believed to be predominately impermeable shales, and limestones with streaks of dolomite and chert. It is believed that this amount of impermeable material is sufficient to provide separation between the two reservoirs.

ATTACHMENT

C O P Y

P. O. Box 2406
Hobbs, New Mexico

March 10, 1961

Mr. A. L. Porter, Secretary
New Mexico Oil Conservation Commission
P. O. Box 871
Santa Fe, New Mexico

Dear Mr. Porter:

Socony Mobil Oil Company, Inc., hereby waives any objection to the proposed dual completion of Pan American Petroleum Corporation No. 2 Hugh Corrigan in the Brunson and Wantz Abo Pools.

This waiver is furnished as offset operator to the subject well for the dual completion application now pending before the Commission, Case No. 2225.

Yours very truly,

/s/ C. H. Samples

JCGordon/vh

C. H. Samples
District Producing Superintendant

cc:
Pan American Petroleum Corporation
P. O. Box 268
Lubbock, Texas

NEW MEXICO OIL CONSERVATION COMMISSION

SANTA FE, NEW MEXICO

7-3-68

APPLICATION FOR DUAL COMPLETION

Field Name Brunson Ellenburger - Wants Abo		County Lee	Date February 24, 1961
Operator Pan American Petroleum Corporation		Lease Hugh Corrigan	Well No. 2
Location of Well	Unit I	Section 33	Township 21-S
		Range 37E	

1. Has the New Mexico Oil Conservation Commission heretofore authorized the dual completion of a well in these same pools or in the same zones within one mile of the subject well? YES _____ NO ☒
2. If answer is yes, identify one such instance: Order No. _____; Operator, Lease, and Well No.:

3. The following facts are submitted:	Upper Zone	Lower Zone
a. Name of reservoir	Wants - Abo	Brunson Ellenburger
b. Top and Bottom of Pay Section (Perforations)	7018-7038 7109-7129 7175-7195	7223-7238 7260-7280 7410-7438
c. Type of production (Oil or Gas)	Oil	Oil
d. Method of Production (Flowing or Artificial Lift)	Flowing	Flowing

4. The following are attached. (Please mark YES or NO)

- ☒ a. Diagrammatic Sketch of the Dual Completion, showing all casing strings, including size and setting, top of cement, perforated intervals, tubing strings, including diameters and setting depth, location and type of packers and side door chokes, and such other information as may be pertinent.
- ☒ b. Plat showing the location of all wells on applicant's lease, all offset wells on offset leases, and the names and addresses of operators of all leases affecting applicant's lease.
- ☐ c. Waivers consenting to such dual completion from each offset operator, or in lieu thereof, evidence that said offset operators have been furnished copies of the application.*
- ☒ d. Electrical log of the well or other acceptable log with tops and bottoms of producing zones and intervals of perforation indicated thereon. (If such log is not available at the time application is filed, it shall be submitted as provided by Rule 112-A.)

5. List all offset operators to the lease on which this well is located together with their correct mailing address.

Mobil Oil Co. P. O. Box 2406, Hobbs, New Mexico

Pan American Petroleum Corporation, Box 268, Lubbock, Texas

6. Were all operators listed in item 5 above notified and furnished a copy of this application? YES ☒ NO _____. If answer is yes, give date of such notification **February 24, 1961**

CERTIFICATE: I, the undersigned, state that I am the **District Engineer** of the **Pan American Petroleum Corp** **Lubbock District** (company), and that I am authorized by said company to make this report; and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge.

Signed By **A. J. Inderriden**

A. J. Inderriden Signature

- * Should waivers from all offset operators not accompany an application for administrative approval, the New Mexico Oil Conservation Commission will hold the application for a period of twenty (20) days from date of receipt by the Commission's Santa Fe office. If, after said twenty-day period, no protest or request for hearing is received by the Santa Fe office, the application will then be processed.
- NOTE: If the proposed dual completion will result in an unorthodox well location and/or a non-standard perforation unit in either or both of the producing zones, then separate application for approval of the same should be filed simultaneously with this application.

attachment VII

EXHIBIT
PAN AMERICAN PETROLEUM CORPORATION
APPLICATION FOR PERMISSION FOR AN OIL-OIL
DUAL PRODUCER IN THE WANTZ-ABO POOL ✓
AND THE BRUNSON ELLENBURGER POOL AT THE ✓
PAN AMERICAN HUGH CORRIGAN NO. 2
LOCATED IN UNIT 1, SEC. 33, T-21-S, R-37-E,
NEW MEXICO OIL CONSERVATION COMMISSION
EXAMINER HEARING CASE NO. 2225
MARCH 22, 1961

8450 Gall

8,474 MCF
801
mo.

94 bbls. of oil

42°

43°

BEFORE EXAMINER UTZ
OIL CONSERVATION COMMISSION
Pan Am EXHIBIT NO. 1
CASE NO. 2225

DISCUSSION

Pan American Petroleum Corporation respectfully requests that the New Mexico Oil Conservation Commission grant permission to dually complete its Hugh Corrigan No. 2 as an oil-oil dual in the Brunson-Ellenburger and Wantz-Abo pools in Lea County, New Mexico.

The Pan American-Hugh Corrigan No. 2, was originally completed as a Brunson-Ellenburger Pool producer on May 26, 1947, for an initial flowing potential test of 312 barrels of 43° gravity oil in 18 1/2 hours. The initial bottom hole pressure at that time was 2883 psi at a datum plane of -4300'. The productivity of the Ellenburger zone has declined to 94 BOPM plus 8474 MCFPM in December 1960.

In January 1961 the Ellenburger was temporarily abandoned in Corrigan No. 2 and the well was recompleted in the Wantz Abo pool for an initial flowing potential test of 165 barrels of 42° gravity oil plus 70 barrels of load water on February 9, 1961. The Ellenburger zone is now shut in pending the results of this hearing.

This lease is included in acreage which has been placed in the Brunson-Ellenburger Pool and the Wantz-Abo Pool by various nomenclature orders dating back to Order No. 850 dated January 1, 1950.

Attachment I, a plat of the area, shows the location of the Hugh Corrigan Lease and points out by means of a red arrow the well in question.

Attachment II consists of a diagrammatic sketch showing the mechanical aspects of this dual installation. Each pool will be produced through a separate 2 3/8" EUE tubing string. The long tubing string (Ellenburger) is latched into the Baker Model D Packer at 7350' and the short tubing string (Abo) is latched into the Baker parallel string anchor at 7007'. It is felt that the use of these latching devices will keep vertical movement of the tubing strings to a minimum if beam pumping equipment is ever installed and thereby minimize the possibility of communication in the well bore through leaks which might result due to wear caused by vertical movement of either of the tubing strings.

It is believed that this mechanical installation is well suited to safely and efficiently produce Brunson-Ellenburger crude and Wantz-Abo crude from this well bore through separate tubing strings.

Attachment III shows logs of the Ellenburger and Abo intervals in Corrigan No. 2.

Attachment IV presents evidence indicative of separation between the Brunson-Ellenburger and Wantz-Abo Pools.

Attachment V is a copy of a letter from Mr. C. H. Samples, District Superintendent of Socony Mobil Oil Company to Mr. A. L. Porter, Secretary-Director of the New Mexico Oil Conservation Commission whereby Socony Mobil, the offset operator, waives objection to this dual application. Socony

Mobil operates offsetting leases to the northeast, north, northwest, west, southwest, and south of the Corrigan Lease. Pan American operates the offsetting lease to the east and southeast.

Attachment VI presents for convenience, a copy of Pan American's application for dual completion dated February 24, 1961. Copies of this application were originally furnished the Commission by Pan American's letter of February 24, 1961, File: CDF-5183-986.510.1

EXHIBIT
PAN AMERICAN PETROLEUM CORPORATION
APPLICATION FOR PERMISSION FOR AN OIL-OIL
DUAL PRODUCER IN THE WANTZ-ABO POOL
AND THE BRUNSON ELLENBURGER POOL AT THE
PAN AMERICAN HUGH CORRIGAN NO. 2
LOCATED IN UNIT 1, SEC. 33, T-21-S, R-37-E,
NEW MEXICO OIL CONSERVATION COMMISSION
EXAMINER HEARING CASE NO. 2225
MARCH 22, 1961

Case 2225

Heard. 3-22-61

Rec. 3-23-61

1. Grant Pan Am. permission to dual complete ~~into~~ Hugh Corrigan #2 located in unit I Sec. 33, 215-37 E.
2. The lower zone is in the Brunson-Elmhurst and the upper zone in the Mantle-Abo.
3. Each zone will be flowed thru 2 $\frac{3}{8}$ " tubing. Zones will be separated by a Baker Model "D" ~~permanent~~ type packer.
4. Usual Well Order otherwise.

Thos. W. R.



Mobil Oil Company

A Division of Socony Mobil Oil Company, Inc.

P. O. Box 2406
Hobbs, New Mexico

March 10, 1961

Mr. A. L. Porter, Secretary
New Mexico Oil Conservation Commission
P. O. Box 871
Santa Fe, New Mexico

Dear Mr. Porter:

Socony Mobil Oil Company, Inc., hereby waives any objection to the proposed dual completion of Pan American Petroleum Corporation No. 2 Hugh Corrigan in the Brunson and Wantz Abo Pools.

This waiver is furnished as offset operator to the subject well for the dual completion application now pending before the Commission, Case No. 2225.

Yours very truly,

C. H. Samples
C. H. Samples
District Producing Superintendent

JCGordon/vh

cc:
Pan American Petroleum Corporation
P. O. Box 268
Lubbock, Texas

*Copy of Order R-1925
Sent 3-28-61
JH*

GOVERNOR
EDWIN L. MECHEM
CHAIRMAN

State of New Mexico
Oil Conservation Commission

LAND COMMISSIONER
E. S. JOHNNY WALKER
MEMBER

STATE GEOLOGIST
A. L. PORTER, JR.
SECRETARY - DIRECTOR

P. O. BOX 571
SANTA FE

March 28, 1961

Mr. Kirk Newman
Atwood & Malone
Box 867
Roswell, New Mexico

Re: Case No. 2225
Order No. R-1925
Applicant:
Pan American Petroleum Corp.

Dear Sir:

Enclosed herewith are ^{one} ~~two~~ copies of the above-referenced Commission order recently entered in the subject case.

Very truly yours,

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

ir/

Carbon copy of order also sent to:

Hobbs OCC x
Artesia OCC
Aztec OCC

OTHER Mr. C. H. Samples
Mobil Oil Co. - Hobbs, N.M.

Mr. Guy Buell

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

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

CASE No. 2225
Order No. R-1925

APPLICATION OF PAN AMERICAN PETROLEUM
CORPORATION FOR AN OIL-OIL DUAL COMPLE-
TION IN THE WANTZ-ABO POOL AND IN THE
BRUNSON-ELLENBURGER POOL, LEA COUNTY,
NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on March 22, 1961, at Santa Fe, New Mexico, before Elvis A. Utz, Examiner duly appointed by the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission," in accordance with Rule 1214 of the Commission Rules and Regulations.

NOW, on this 28th day of March, 1961, the Commission, a quorum being present, having considered the application, the evidence adduced, and the recommendations of the Examiner, Elvis A. Utz, and being fully advised in the premises,

FINDS:

(1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.

(2) That the applicant, Pan American Petroleum Corporation, proposes to dually complete its Hugh Corrigan Well No. 2, located in Unit I, Section 33, Township 21 South, Range 37 East, NMPM, Lea County, New Mexico, in such a manner as to permit the production of oil from the Wantz-Abo Pool and the production of oil from the Brunson-Ellenburger Pool through parallel strings of 2 3/8-inch tubing.

(3) That the mechanics of the proposed dual completion are feasible and in accord with good conservation practices.

(4) That approval of the subject application will neither cause waste nor impair correlative rights.

-2-
Case No. 2225
Order No. R-1925

IT IS THEREFORE ORDERED:

That the applicant, Pan American Petroleum Corporation, is hereby authorized to dually complete its Hugh Corrigan Well No. 2, located in Unit I, Section 33, Township 21 South, Range 37 East, NMPM, Lea County, New Mexico, in such a manner as to permit the production of oil from the Wantz-Abo Pool and the production of oil from the Brunson-Ellenburger Pool through parallel strings of 2 3/8-inch tubing.

PROVIDED HOWEVER, That the applicant shall complete, operate, and produce said well in accordance with the provisions of Section V, Rule 112-A.

PROVIDED FURTHER, That the applicant shall take packer-leakage tests upon completion and annually thereafter during the Gas-Oil Ratio Test Period for the Brunson-Ellenburger Pool, or as required by the Secretary-Director of the Commission.

IT IS FURTHER ORDERED:

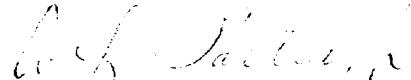
That jurisdiction of this cause is hereby retained by the Commission for such further order or orders as may seem necessary or convenient for the prevention of waste and/or the protection of correlative rights; upon failure of the applicant to comply with any requirement of this order, the Commission may terminate the authority herein granted and require the applicant or its successors and assigns to limit its activities to regular single-zone production in the interest of conservation.

DONE at Santa Fe, New Mexico, on the day and year herein-above designated.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION


EDWIN L. MECHEM, Chairman


E. S. WALKER, Member


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


esr/

BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO
MARCH 22, 1961

IN THE MATTER OF

CASE 2225: Application of Pan American Petroleum Corporation for an oil-oil dual completion. Applicant, in the above-styled cause, seeks an order authorizing the dual completion of its Hugh Corrigan Well No. 2, located in Unit I, Section 33, Township 21 South, Range 37 East, Lea County, New Mexico, in such a manner as to permit the production of oil from the Wantz-Abo Pool and the production of oil from the Brunson-Ellenburger Pool through parallel strings of 2 3/8-inch tubing.

BEFORE:

Elvis A. Utz, Examiner.

T R A N S C R I P T O F P R O C E E D I N G S

MR. UTZ: Case 2225.

MR. MORRIS: Application of Pan American Petroleum Corporation for an oil-oil dual completion.

MR. NEWMAN: Kirk Newman, Atwood & Malone, Roswell, New Mexico, representing the applicant.

(Witness sworn)

W. J. SANDIDGE, JR.,

called as a witness, having been first duly sworn, testified as

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follows:

DIRECT EXAMINATION

BY MR. NEWMAN:

Q Would you state your name and employment, please?

A I am W. J. Sandidge, Jr. I am a petroleum engineer employed by Pan American Petroleum Corporation in their Lubbock District office.

Q Have you previously testified before this Commission as a petroleum engineer?

A I have.

MR. NEWMAN: Qualifications accepted?

MR. UTZ: Yes, sir.

Q (By Mr. Newman) Would you state briefly the nature of the application?

A Pan American requests permission to dually complete its High Corrigan No. 2 Well in the Brunson Ellenburger Pool, and the Wantz-Abo Pool. We have asked for a hearing in this case rather than administrative handling since, to our knowledge, these two pools have never before been dually completed.

Q Would you refer to the pamphlet, which will be offered as the applicant's Exhibit 1, and state the nature of the contents, right and left of that pamphlet?

(Whereupon, Pan American's Exhibit No. 1 was marked for identification)

A On the left-hand side we have a general discussion per-

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taining to the merits of the case. On the right side we have maps, diagrammatic sketches, et cetera, which pertain to this case.

Q The matters on the right are the Attachments which will be referred to in the testimony?

A That is correct.

Q Would you refer to Attachment I and state what that Attachment shows, please?

A Attachment I is a plat showing the location of the Pan American Hugh Corrigan lease. It is located in Unit I, Section 33, Township 21 South, Range 37 East, and a red arrow points to the location of Well No. 2, which is the well in question.

Q Would you refer to Attachment II, which is a schematic drawing, and state what that Attachment shows, please?

A This schematic drawing shows the mechanical aspects of this dual completion. The well has 13 3/8 inch casing set at 298 feet with 280 sacks of cement. There is 9 5/8 inch casing set at 2953 feet, and 7-inch casing set at 7452 feet.

The Ellenburger perforations are over the interval 7410 to 38. The Abo has been selectively perforated between the interval 7018 feet and 7280 feet. There are two parallel strings of 2 3/8 inch OD tubing in the well. The longer string is landed in a production packer set at 7350 and will serve the Ellenburger completion. The shorter string is landed into a parallel string anchor at 7007 feet, and will serve the Abo completion. Both strings consist of 2 3/8 inch OD tubing, which has an ID of 1.995 inches.

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Q Is there any possibility of communication between the production from the separate pools with this installation?

A In my opinion, there is not.

Q Any possibility of communication at the wellhead?

A The strings are connected to separate master valves and flow wings, and there's no possibility of communication.

Q Is this installation of a common type previously approved by the Commission for a dual completion?

A Yes, it is. We have two similar installations on our State AG lease in the Justis Pool.

Q Would you refer to Attachment III, and state what that Attachment is for?

A Attachment III is a log of the well in question that has been included to show the approximately 60 feet of the material across the interval 7320 to 7380, which we feel is sufficient to separate the two pools.

Q Will you please refer to your Attachment IV and state what that Attachment shows?

A Since, to our knowledge, the vertical limits of these two pools have not been delineated, we have included pressure data here to the Brunson-Ellenburger Pool and Wantz-Abo Pool indicating that the Wantz-Abo Pool, the shallowest of the two pools, has a higher pressure than the Brunson-Ellenburger Pool, as further evidence of separation.

Q Your Attachment III, the log, also shows the location of



the perforations and clearly indicates that the perforations are from the separate pools, is that correct?

A That is correct.

Q Would you refer to your Attachment V, the letter from Socony Mobil, and state the purpose of that Attachment?

A This lease is offset by leases operated by Socony Mobil and by Pan American. We have a waiver from Socony Mobil, which is included as Attachment V.

Q It shows that they have no objection to the granting of this application for the oil-oil dual?

A That is correct.

Q Would you state what your Attachment VI shows?

A That is a copy of the application that was previously submitted to the Commission. It's included for information purposes only.

Q Mr. Sandidge, is there any possibility that the granting of this application and the resulting operations under it could in any way cause waste?

A No. We think it will prevent waste in that we'll be able to produce the Ellenburger reservoir for a longer period of time.

Q Is there any way that the granting of this application could adversely effect correlative rights?

A No. The ownership in the two reservoirs is the same in the Corrigan lease.

Q Was this Exhibit and the Attachments thereon prepared by

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you or under your direction?

A They were.

MR. NEWMAN: We would like to offer Exhibit 1 with the Attachments into evidence.

MR. UTZ: Without objection, Pan American's Exhibit No. 1 will be entered into the record.

MR. NEWMAN: That's all of the direct.

CROSS-EXAMINATION

BY MR. UTZ:

Q Mr. Sandidge, do you have the GOR's, gravities and the type crude for the two zones?

A The gas-oil ratio of the Wantz-Abo is approximately 8450. The gravity of the Wantz-Abo oil is 42 degrees. The gravity of the Ellenburger oil is 43 degrees, and on latest production, this well produced 94 barrels of oil per month and 8474 MCF per month. I would have to juggle some numbers to come up with the gas-oil ratio on that.

Q What was that, 8000 what?

A 8474 MCF per month.

Q That would be divided by 94?

A Yes, sir.

Q What type crude does each zone have, sweet, intermediate?

A I believe the Ellenburger is sweet. I would classify the Abo as intermediate.

Q Neither being corrosive?

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A Oh, not to any great extent.

Q The top of the cement on your 7-inch is 2758 by temperature survey?

A That is correct.

Q So that would put it some 200 feet up into the 9 5/8, is that correct?

A That is correct, yes, sir.

Q And your 13 3/8 is circulated?

A I checked very carefully in our records, I could find no evidence one way or the other on that. However, based on my field experience, that is enough to normally circulate a string of that size.

Q The Model "D" Packer is a permanent type packer, right?

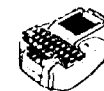
A That is a permanent type packer.

Q Wasn't the bottom hole pressure for the Ellenburger unusually low for the Ellenburger in this area?

A This is taken from the data published by the Engineering Committee of New Mexico, and I would say that is about right. This area is very much depleted, the offset well, I believe, is shut in. We had considerable difficulty returning the Ellenburger to production after recompleting in the Abo.

MR. UTZ: Are there any other questions of the witness?
The witness may be excused.

(Witness excused)



MR. UTZ: Any other statements in this case? If there are none, the case will be taken under advisement.

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STATE OF NEW MEXICO)
) ss
 COUNTY OF BERNALILLO)

I, ADA DEARNLEY, Court Reporter, in and for the County of Bernalillo, State of New Mexico, do hereby certify that the foregoing and attached Transcript of Proceedings before the New Mexico Oil Conservation Commission was reported by me in machine shorthand and reduced to typewritten transcript under my personal supervision, and that the same is a true and correct record to the best of my knowledge, skill and ability.

WITNESS my Hand and Seal this, the 1st day of April, 1961, in the City of Albuquerque, County of Bernalillo, State of New Mexico.

Ada Dearnley
 NOTARY PUBLIC

My Commission expires:

June 19, 1963

I do hereby certify that the foregoing is a complete record of the proceedings in the Bernalillo County of New Mexico, 2285 heard by me on May 22, 1961.
Thos. A. W., Examiner
 New Mexico Oil Conservation Commission

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