Case//o.

175

Application, Transcript,
Small Exhibits, Etc.

of that 611 Corp. for an order to dually section and produce from the Hobbs lime section and byers sand section, etc.

April 22, 1949

Nr. S. G. Sanderson, Mgr. of Production Gulf Oil Corporation P. O. Box 661 Tulse 2, Oklahoma

Dear Mr. Sandersons

Enclosed herewith is a signed copy of Order No. 316, issued by the Oil Conservation Commission of the State of New Mexico, in connection with the hearing held on March 31, 1949, at Santa Fe, New Mexico. This is for your records.

Very truly yours,

R. R. Spurrier Secretary and Director

RRS: by

Wins /

April 22, 1949

Oil Conservation Commission P. O. Box 1545 Hobbs, New Mexico

Contlement

We are enclosing herewith, copies of Order Nos. 816 and 817, issued by the Oil Conservation Commission, in connection with the hearing held on March 31, 1949, at Santa Fe, New Mexico.

These are for your records.

Very truly yours,

R. R. Spurrier Secretary and Director

RRS: bw

Hobos, New Mexico

OIL CONSERVATION COMMISSION
SANTA FE. NEW MEXICO.

MAY 23 1949

New Mexico Cil Conservation Commission Santa Fe, New Mexico

Dear Sir:

In accordance with your Order No. 816, following are the results of segregation tests taken or Gulf West Grimes No. 15, which was dually completed:

- 1. Both tubing and casing was shut-in until both zones (Byers and Hobbs Lime) reached a maximum static surface condition.
- 2. On May 5, 1949, the tubing reached a maximum pressure of 650 psi and the casing reached a maximum pressure of 950 psi.
- 3. Prior to this date, the offset operators and the local Commission representatives were notified by letter that segregation tests would be taken at 9 A.M. on May 5, 1949.
- 4. The tubing was opened through a 16/64" choke at 9 A.M. and, in 24 hours, it produced 104 barrels of oil and 48,890 cubic feet of gas. The tubing pressure declined to approximately 250 psi and the easing pressure remained constant at 950 psi except for minor temperature changes. This information is attached for your inspection and is referred to as Chert No. 1
- 5. At the end of the test, the tubing was shut-in and remained building up in pressure until May 18, 1949, when it reached a maximum pressure of 760 psi.
- 6. On May 18, 1949, at 8:30 A.M., the casing was opened through an 8/64" choke and, in 24 hours, it delivered 95,000 cubic feet of dry gas into Gulf's Hobbs Gas System. The casing pressure dropped from 950 psi to 350 psi and the tubing pressure remained constant at 760 psi. This information is attached for your inspection and is referred to as Chart No. 2.
- 7. The results of this testing definitely prove that segregation is complete between the casing and tubing, and that no commingling of fluids exist.

The original test was witnessed by Mr. Wayne Bright, Stanolind Engineer, on May 5, 1949, but there was not any Commission representative present.

The Gulf Oil Corporation has previously filed a diagrammatic sketch of the mechanical equipment utilized in West Grimes No. 15. Future segregation tests will be taken in accordance with your Order No. 816.

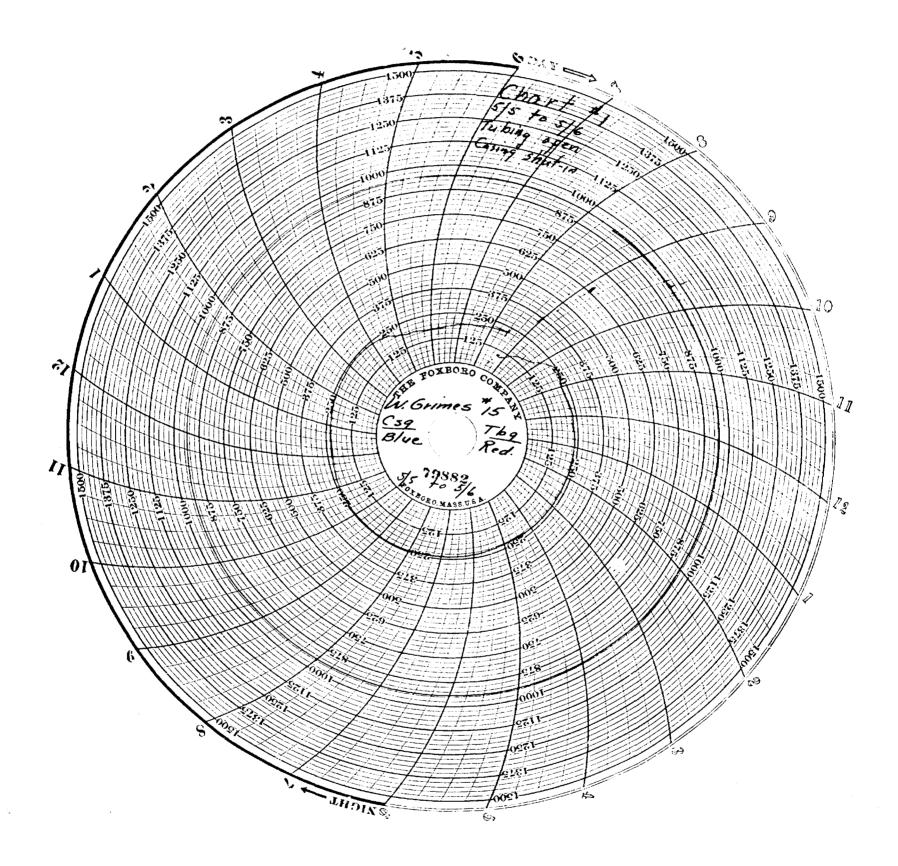
Very truly yours,

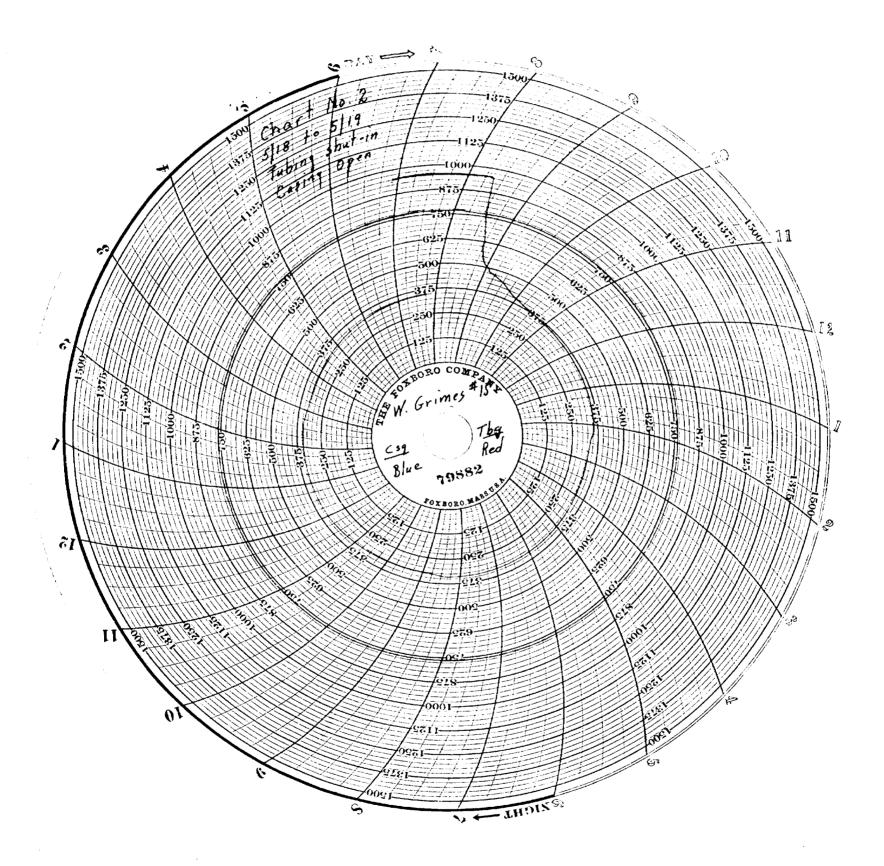
6. E. Gellagher

E. J. Gallagher.
District Superintendent
Gulf Gil Corporation

PCE:1fr

Att'd.





Harch 1, 1949

Mr. S. G. Sanderson Hanager of Production Guif Oil Corporation P. O. Box 661 Tulsa 2, Oklahoma

Deer Mr. Sandersons

We have received your application for dual completion on your West Grimes lease.

Tentatively, we have in mind March 24th as a date for our next hearing which will include your application. We will advise you definitely as soon as the date is set.

Very truly yours,

R. R. Spurrier Secretary and Director

MSFbew



GULF OIL CORPORATION

P.O. BOX 661 · TULSA 2, OKLAHOMA

GYPSY DIVISION

February 18, 1949



Mr. R. R. Spurrier Oil Conservation Commission Santa Fe, New Mexico

Dear Sir:

Please find attached three copies of an application which we wish to file in regard to dually completing Gulf-West Grimes No. 15, located 990' from south line and 2310' from west line, Section 32-185-38E, Lea County, New Mexico. Our proposed plan is to produce the Byers gas sand through annular space between tubing and casing, and the Hobbs lime section through tubing by means of packer control.

S. G. Sanderson

Manager of Production

ACG: JHR

Att. (3)

dobbs, New Mexico March 29, 1949

New Mexico wil Conservation Commission tents Fe. New Mexico

Gentlemen:

The Gulf wil worporation's west Grimes No. 15 is located 990 feet from the south line and 2310 feet from the west line of Section 32, Township 185, Range 38E, Lea County, New Mexico. Two States Brilling Company rotary tools were rigged up and drilling operations commenced on December 19, 1948. The 13-3/8" U.D., 48, H-40, S.S. casing was set at 326 feet and comented with 325 sucks of coment which was circulated to the surface. The Syers sand was encountered at 3655 feet and the entire section was cored with the byers section extending to 3730 feet. The section from 3653 feet to 3731 feet was drill stem tested using the Halliburton testing tool and 1,072 ... C.F. of gas was gauged at the surface with 625 psi bottom hole flowing pressure. The well was then drilled to a depth of 4094 feet in the Lovington sand member and 7" 0.D., 23#, J-55, S.S. casing was set at 4094 feet and cemented with 825 sacks of cement. The cement top behind the ?" casing was found at 2150 feet as per temperature survey. The 7^* casing was then perforated with one $1/2^*$ hole at 2100 feet and re-cemented with 500 sacks of cament and the cement top behind the 7" casing was found at 1459 feet as per temperature survey which is above the salt section. The mobbs lime pay section was then penetrated to a total depth of 4105 feet and a Lane nells radio activity log was obtained and three copies of the log are submitted to the Commission for their information. After running tubing and treating the dobbs lime with 500 gallons of acid, the well flowed 552 barrels of oil in 24 hours with a G.J.k. of 1345. After 24 hour shut-in period, the static bottom hole pressure was observed as 1161 psi.

Thirty barrels of oil base mud was spotted from total depth to above the Byers formation and the casing was filled to the surface with salt water mud. The 7" casing was the perforated opposite the Byers section from 3650 - 75 feet, 3685 - 3700 feet, and 3715 - 3730 feet with 4 jet holes per foot. The tubing string was run in the well from bottom up as follows:

- (1) Std. 2-3/8" U.D. x 6' nipple w/top 2' perforated
- (2) 7" x 2" Lane wells type but hookwall packer set at 4059*
- (3) 2-5/8" U.D. Baker sefety joint
- (4) One 6' tubing nipple
- (5) 2-3/8" Otis type "L" landing nipple (side door choke)
- (6) 2-3/8" U.D., EUE, 4.7#, S.S. tubing to surface

The mud was then displaced with 195 barrels of oil and an otis check valve and side door choke was run and set in landing nipple which shut-off the bottom formation, nobbs lime. Swabbed load oil from tubing and casing and well flowed through the tubing from the byers section to clean up. After shutting-in casing and tubing in order to reach maximum pressure, the otis check valve and side door choke was juiled and, prior to this operation, the static bottom hole pressure of the byers section after 99 hours shut-in was observed to be 702 psi. The side door choke was then re-run with upper and lower packing elements and the perforations in the side door choke shut-off. This enables the byers gas to be flowed through the casing and the hobbs lime oil to be flowed through the tubing without commingling of the fluids. The attached schematic drawing shows the producing equipment installed in west Grimes No. 15.

attempts were made to obtain segregation tests but, after ten days testing, it was determined that segregation of the two above described zones was not complete. It is now planned to pull the tubing and packer and re-run dual completion equipment from bottom up as follows:

- (1) Std. 2-3/8" U.D. x 6' nipple w/top 2' perforated
- (2) 7" x 2" Lane wells type BOC hookwell packer set at approximately 4059"
- (3) E-3/8" (.). Daker safety joint
- (4) 2-5/8" Utis type "L" landing nipple (bide door choke)

....

(5) 3-1/2" U.D., 7.7%, BUL, S.S. tubing to surface

The Hobbs lime section will be blanked off with Otis side door choke and the Syers gas section will be swabbed to induce flow. After the Syers section has flowed sufficiently to clean up, the Otis side door choke will be pulled and re-run blanking off the casing from the tubing and opening up the Hobbs lime section to the tubing. Then segregation tests will be taken in the following manner:

- (1) The casing and tubing will be shut-in until both zones have reached a maximum pressure; then the tubing will be opened and the Hobbs lime section produced. A dual pressure recorder will be installed so that both the tubing and casing pressures can be recorded on the same chart. Also, the oil and gas will be Heasured for a 24 hour period.
- (2) Then the tubing will be shut-in and allowed to build-up to maximum pressure. The casing will be opened and the Byers gas section tested in the manner described above.
- (3) The results of these tests will be reported to the Oil Conservation Commission and these tests will be repeated at periodic intervals in accordance with previous orders of the Commission in order to assure that communication between the two zones does not exist.

The oil obtained from the Hobbs lime section will be stored on the lease and sold to the shell ripe Line Company. The available gas produced against 400 psi surface pressure will be utilized in the Gulf Hobbs gas lift system to produce the movers crude oil on the West Grimes Lease and the Hobbs lime crude oil on the Worth Grimes and dardin Leases. Also, the well will provide gas for house consumption at the Gulf camp and Cities Service camp in Hobbs. There is no doubt that the two above described zones are definite and distinct reservoirs. The gas produced from the Byers section is classified as "sweet gas" and is non-corrosive while the oil produced from the Hobbs lime is sour and is slightly corrosive.

The Commission will recall that the Gulf obtained permission on July 16, 1947, to dually complete their west Grimes No. 4 in the dobbs Pool. The nowers oil zone is produced through the casing and the nyers gas zone is produced through the tubing. The same type of equipment was utilized in this completion as has been utilized in dually completing west Grimes No. 15. Subsequent segregation tests on west Grimes No. 4 have proven that to date an effective seal has been maintained between the tubing and casing.

The reasons that the Gulf Gil Corporation proceeded to dually complete this well without specific authority from the New Lexico Gil Conservation Commission are as follows:

- (1) At the time this well was staked and drilling operations commenced, it was not definitely known that the Byers gas section would be productive on this 40 acre tract. Therefore, it was believed advisable and prudent to determine the productivity of this zone before requesting penalssion to dually complete west Grimes No. 15.
- (2) By the time the gas productivity of the byers zone was determined, the New Mexico Esgislature was in session and it was not planned to hold an Oil Conservation Commission hearing until March, 1949. Delaying the mechanics of dual completion at the time the rotary rig was in place until official approval was obtained would have entailed considerable extra expense. It is my estimate that the delay would have cost the Gulf Oil Corporation approximately 47.500 in rig time and mud cost.
- (3) Due to the low productivity of the Lyers gas section, it would not be economical to drill a separate well to this strata nor is it economical to delay operations so that completion expense will be increased.

Very truly yours,

Paul C. Evans District Angineer Gulf wil Corporation MEW MEDICO CLIPPING BUREAU Albuquerque, N. M.

MAR 1 7 1949 Hobbs News Sun

March 17, 1949 LEGAL NOTICE

NOTICE OF PUBLICATION
STATE OF NEW MEXICO
OIL CONSERVATION
COMMISSION
The State of New Mexico by its
Oil Conservation. Commission hereby gives notice, pursuant to law, of the following public hearings to be held March 31, 1949, beginning at 10:00 o'clock A.M. on that day in the City of Santa Fe, New Mexico, in the Senate Chambers.

on that day in the Only
Fe, New Mexico, in the Senate
Chambers.
STATE OF NEW MEXICO TO:
All named parties in the
following cases, and
notice to the public:

Case 175

In the matter of the application
of Gulf Oil Corporation for an
order to dually complete and produce from the Hobbs lime section
and the Byers sand section from
a single well bore in the West
Grimes No. 15, located 930 feet
north of the south line and 2310
feet east from the west line of
section \$2, Township 18S, Range
38E, Lea County, New Mexico.
In the matter of the application
of the Oil Conservation Commes

Case 176 County, New Merico.

Case 176 In the matter of the application of the Oil Conservation Commission upon its own motion to amend Paragraph 2 of Order No. 788, issued in Case No. 146, deleting therefrom the words at the end of the section to-wit: "Provided that a supplemental order is issued authorizing such production," and making said Paragraph 2 of said Order 788 read as follows:

"Paragraph 2. That any common purchaser is authorized to purchase 100 per cent of the allowable from all units classified as marginal units on the marginal unit is a unit that is

marginal unit is a unit that is

incapable of producing the state top unit allowable for that particular month. Any amount of crude petroleum up to and including the top unit allowable for that particular month able for that particular month may be purchased from a marginal unit."

Case 177.

In the matter of the application of the Oil Conservation Commission upon its own motion to rescind, revise, change or amend Order No. 573, which became effective as of June 1, 1944, and generally known as the "Bonus Discovery Allowable Order."

In the matter of the application of the Oil Conservation Commission upon its own motion upon recommendation of the Nomenclature Committee for an order deleting from the Arrowhead pool as herestore established, the following described lands: SW 7 of section 11, and the W 2 of section 14, T. 22S, R. 36E M.M.P.M., Lea County, New Mexico. This deletion from the Arrowhead pool is nector the South Dunice pool to include gas production in the west part of above described section.

Given under the seal of the Oil Conservation Commission of New Mexico, at Santa Fe, New Mexico, on March 16, 1949.

STATE OF NEW MEXICO OIL CONSERVATION

COMMISSION (Seal)

R. R. SPURRIER, Secretary.

AFFIDAVIT OF PUBLICATION

State of New Mexico, County of Lea

Of the Hobbs Daily News-Sun, a daily newspaper published at Hobbs, New Mexico, do solemnly swear that the clipping attached hereto was published once a week in the regular and entire issue of said paper, and not in a supplement thereof for a

beginning with the issue dated arch 17, 19 49

ending with the issue dated.....

rch 17, 19 49

Sworn and subscribed to before me

//____day of_____ Notary Public.

commission expires lanuary NS, 1953 (Seal)

This newspaper is duly qualified to publish legal notices or ad-vertisements within the mean-ing of Section 3, Chapter 167, Laws of 1937, and payment of fees for said publication has been made.

March 17, 1949 LEGAL NOTICE

NOTICE OF PUBLICATION
STATE OF NEW MEXICO
OIL CONSERVATION
COMMISSION
The State of New Mexico by its
Oil Conservation Commission
hereby gives notice, pursuant to
law, of the following public hearings to be held March 31, 1949,
beginning at 10:00 o'clock A.M.
on that day in the City of Santa
Fe, New Mexico, in the Senate
Chambers.

Fe, New Mexico, in the Senate Chambers.

STATE OF NEW MEXICO TO:
All named parties in the following cases, and notice to the public:

Case 175—

In the matter of the application of Gulf Oil Corporation for an order to dually complete and produce from the Hobbs lime section and the Byers sand section from duce from the Hobbs lime section and the Byers sand section from a single well bore in the West Grimes No. 15, located 990 feet north of the south line and 2310 feet east from the west line of section 32, Township 185, Range 38E, Lea County, New Mexico.

Case 176—
In the matter of the application of the Oil Conservation Commission upon its own motion to amend Paragraph 2 of Order No. 788, issued in Case No. 146, deleting therefrom the words at the end of the section to-wit: "Provided that a supplemental order is issued authorizing such production," and making said Paragraph 2 of said Order 788 read as follows:

"Paragraph 2. That any common purchase 100 per cent of the allowable from all units classified as marginal units on the monthly recreation order A marginal-unit is a unit that is

incapable of producing the state top unit allowable for that particular month. Any amount of crude petroleum up to and including the top unit allowable for that particular month may be purchased from a marginal unit."

Case 177—

In the matter of the application of the Oil Conservation Commission upon its own motion to re-

or the On Conservation Commission upon its own motion to rescind, revise, change or amend Order No. 573, which became effective as of June 1, 1944, and generally known as the "Bonus Discovery Allowable Order."

generally known as the "Bonus Discovery Allowable Order."

Cass 178—

In the matter of the application of the Oil Conservation Commission upon its own motion upon recommendation of the Nomenclature Committee for an order deleting from the Arrowhead pool as heretofore established, the following described lands: SW¼ of section 11, and the W½ of section 14, T. 22S, R. 36E, N.M.P.M., Lea County, New Mexico. This deletion from the Arrowhead pool is necessary because of the extension of the South Eunice pool to include gas production in the west part of above described section. Given under the seal of the Oil Conservation Commission of New Mexico, at Santa Fe, New Mexico, on March 15, 1949.

STATE OF NEW MEXICO

OIL CONSERVATION

COMMISSION (Seal)

R. R. SPURRIER, Secretary.

NOTICE JF PUBLICATION STATE OF INTHEX.) OIL CONSERVATION CQURESTON (copied from Noobs Daily News) 3-17-49

The State of New Mexico by its Oil Conservation Commission hereby gives notice, pursuant to law, of the following public hearings to be held March 31, 1949, beginning at 10:00 of clock A.M., on that day in the City of Santa Fe, New Mexico, in the Senate Chambers.

STATE OF NEW MEXICO TO:

All named parties in the following cases, and notice to the public:

- In the matter of the application of Gulf Oil Corporation for an order to dually complete and produce from the Hobbs lime section and the Byers sand section from a single well bore in the West Grimes No. 15, located 990 feet north of the south line and 2310 feet east from the west line of section 32, Township 138, Range 38E, Lea County, New Mexico.
- In the matter of the application of the Oil Conservation Commission upon its own motion to amend Paragraph 2 of Order No. 788, issued in Case No. 146, deleting therefrom the words at the end of the section to-wit: "Frovided that a supplemental order is issued authorizing such production," and making said Paragraph 2. of said Order 788 read as folla:s:

"Paragraph 2. That any common purchaser is authorized to purchase 100 percent of the allowable from all units classified as marginal units on the monthly proration order. A marginal unit is a unit that is incapable of producing the state top unit allowable for that particular menth. Any amount of crude petroleum up to and including the top unit allowable for that particular menth may be purchased from a marginal unit."

- CASE 177 In the matter of the application of the Oil Conservation Commission upon its commotion to rescind, revise, change or amond Order No. 573, which became effective as of June 1, 1944, and generally known as the "Bonus Discovery Alloyable Order."
- In the matter of the application of the Oil Conservation Commission upon its own motion upon recommendation of the Momenclature Committee for an Order deleting from the Arrowhead poel as heretofore established, the following described lands: SV_{4}^{-1} of section 11, and the V_{2}^{-1} of section 14, T.22S, R.36E, N.M.P.M., Lea County, New Mexico. This deletion from the Arrowhead poel is necessary because of the extension of the South Eunice pool to include gas production in the west part of above described section.

GIVEN *mder the seal of the Oil Conservation Commission of Now Mexico, at Santa Fo, New Mexico, on Harch 15, 1949.

HEA COUNTY OFERATORS COMMITTEE HOBES, NEW REXICO March 17, 1949

STATE OF NEW MEXICO OIL CONSERVATION COMMISSION R. R. SPURRER, SECRETARY

(Excring on above Case 177 has been postpored until scretime in May)

March 15, 1949

HOBBS NEWS SUN Hobbs, New Mexico

RE: Cases 175-176-177-178

Centlemens

Flease publish the enclosed notice once, immediately. Please proofreed the notice carefully and send a copy of the paper carrying such notice.

PLEASE PROOF READ AND UPON COMPLETION OF THE PUBLICATION SEND PUBLISHER'S AFFIDAVIT IN DUPLICATE.

For payment please submit statement in duplicate, accompanied by woucher executed in duplicate. The necessary blanks are enclosed.

Very truly yours,

Secretary and Director

RRS: bu

MOTICE OF HUBBLICATION STATE OF MEN REXICO OIL CONSERVATION CONSTRUCTION

The State of New Mexico by its Oil Conservation Commission hereby gives notice, pursuant to law, of the following public hearings to be held March 31, 1949, beginning at 10:00 o'clock A.M. on that day in the City of Santa Fe, New Mexico, in the Conate Chambers.

STATE OF THE MEXICO TO:

All named parties in the following cases, and notice to the public:

Case 175

In the matter of the application of Gulf Oil Corporation for an order to dually complete and produce from the Mobbs lime section and the Eyers sand section from a single well bore in the West Grimes #15, located 990 ft. north of the south line and 2310 ft. east from the west line of section 32, T.185, R.38E, Lea County, New Mexico.

Case 176

In the matter of the application of the Oil Conservation Commission upon its own motion to amend Paragraph 2 of Order No. 788, issued in Case No. 146, deleting threrfrom the words at the end of the section to-wit: "Provided that a supplemental order is issued authorizing such production", and making said Paragraph 2 of said Order 788 read as follows:

*Paragraph 2. That any common purchaser is authorized to purchase 100% of the allowable from all units classified as marginal units on the monthly proration order. A marginal unit is a unit that is incapable of producing the state top unit allowable for that particular month.

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Case 177

In the matter of the application of the Oil Conservation Commission upon its own motion to rescind, revise, change or amend Order No. 573, which became effective as of June 1, 1944, and generally known as the "Bonus Discovery Allowable Order".

Case 178

In the matter of the application of the Oil Conservation Commission upon its own motion upon recommendation of the Nomenclature Committee for an order deleting from the Arrowhead pool as heretofore established, the following described lands: SWF of section 11, and the WE of section 14, T.22S, R.36E, N.M.P.M., Lea County New Mexico. This deletion from the Arrowhead pool is necessary because of the extension of the South Eunice pool to include gas production in the west part of above described section.

Given under the seal of the Oil Conservation Commission of New Mexico, at Santa Fe, New Mexico, on Parch 15, 1949.

STATE OF NEW NEXTCO OIL CONSERVATION CONSISSION

R. R. SPURRIER, Secretary

Hebbs, New Mexico Maron 29, 1949

New Mexico Uil Conservation Commission Santa Fe. New Mexico

Gentlemen:

The Gulf Wil Corporation's west Grimes No. 15 is located 990 feet from the south line and 2310 feet from the west line of Section 32, Township 185, Range 38k, Lea County, New Mexico. Two States Drilling Company rotary tools were rigged up and drilling operations commenced on December 19, 1948. The 13-3/8* O.D., 48, H-40, S.S. easing was set at 328 feet and comented with 325 sacks of coment which was circulated to the surface. The Byers sand was encountered at 3655 feet and the entire section was cored with the Byers section extending to 3730 feet. The section from 3653 feet to 3731 feet was drill stem tested using the Halliburton testing tool and 1,072 ... C.F. of gas was gauged at the surface with 625 psi bottom hole flowing pressure. The well was then drilled to a depth of 4094 feet in the Lovington sand member and 7" 0.D., 23#, J-55, S.S. casing was set at 4094 feet and cemented with 825 sacks of cement. The cement top behind the 7" casing was found at 2150 feet as per temperature survey. The 7° casing was then perforated with one 1/2° hole at 2100 feet and re-cemented with 500 sacks of cement and the cement top behind the 7" casing was found at 1450 feet as per temperature survey which is above the salt section. The Hobbs lime pay section was then penetrated to a total depth of 4105 feet and a Lane wells radio activity log was obtained and three copies of the log are submitted to the Commission for their information. After running tubing and treating the Hobbs lime with 500 gallons of acid, the well flowed 552 barrels of oil in 24 hours with a G.J.A. of 1343. After 24 hour shut-in period, the static bottom hole pressure was observed as 1161 psi.

Thirty barrels of oil base mud was spotted from total depth to above the Syers formation and the casing was filled to the surface with salt water mud. The 7" casing was the perforated opposite the Syers section from 3650 - 75 feet, 3685 - 3700 feet, and 3715 - 3750 feet with 4 jet holes per foot. The tubing string was run in the well from bottom up as follows:

- (1) Std. 2-3/8" U.D. x 6' nipple w/top 2' perforated
- (2) 7" x 2" Lane wells type BOC hookwall packer set at 4059'
- (3) 2-3/8" U.D. Baker safety joint
- (4) One 6' tubing nipple
- (5) 2-3/8" Otis type "L" landing nipple (side door choke)
- (6) 2-3/8" U.D., EUE, 4.7", S.S. tubing to surface

The mud was then displaced with 195 barrels of oil and an otis eneck valve and side door choke was run and set in landing nipple which shut-off the bottom formation, dobbs lime. Swabbed load oil from tubing and casing and well flowed through the tubing from the byers section to clean up. After shutting-in easing and tubing in order to reach maximum pressure, the Otis check valve and side door choke was gulled and, prior to this operation, the static bottom hole pressure of the byers section after 99 hours shut-in was observed to be 702 psi. The side door choke was then re-run with upper and lower packing elements and the perforations in the side door choke shut-off. This enables the byers gas to be flowed through the resing and the dobbs lime oil to be flowed through the tubing without commingling of the fluids. The attached schematic drawing shows the producing equipment installed in west Grimes No. 15.

Attempts were made to obtain segregation tests but, after ten days testing, it was determined that segregation of the two above described zones was not complete. It is now planned to pull the tubing and packer and re-run dual completion equipment from bottom up as follows:

- (1) Std. 2-3/8" U.D. x 6' nipple w/top 2' perforated
- (2) 7" x 2" Lane Wells type BOC hookwall packer set at approximately 4059*
- (3) 2-3/8" O.D. Baker safety joint
- (4) 2-3/8" Otis type "L" landing nipple (Side door choke)

(5) 3-1/2" U.D., 7.7#, EUE, S.S. tubing to surface

The Hobbs lime section will be blanked off with Otis side door choke and the Byers gas section will be swabbed to induce flow. After the Byers section has flowed sufficiently to clean up, the Otis side door choke will be pulled and re-run blanking off the easing from the tubing and opening up the Hobbs lime section to the tubing. Then segregation tests will be taken in the following manner:

- (1) The casing and tubing will be shut-in until both zones have reached a maximum pressure; then the tubing will be opened and the Hobbs lime section produced. A dual pressure recorder will be installed so that both the tubing and easing pressures can be recorded on the same chart. Also, the oil and gas will be measured for a 24 hour period.
- (2) Then the tubing will be shut-in and allowed to build-up to maximum pressure. The casing will be opened and the Byers gas section tested in the manner described above.
- (3) The results of these tests will be reported to the Oil Conservation Commission and these tests will be repeated at periodic intervals in accordance with previous orders of the Commission in order to assure that communication between the two zones does not exist.

The oil obtained from the Hobbs lime section will be stored on the lease and sold to the Shell Pipe Line Company. The available gas produced against 400 psi surface pressure will be utilized in the Gulf Hobbs gas lift system to produce the Bowers crude oil on the West Grimes Lease and the Hobbs lime crude oil on the North Grimes and dardin Leases. Also, the well will provide gas for house consumption at the Gulf camp and Cities Service camp in Hobbs. There is no doubt that the two above described zones are definite and distinct reservoirs. The gas produced from the Byers section is classified as "sweet gas" and is non-corrosive while the oil produced from the Hobbs lime is sour and is slightly corrosive.

The Commission will recall that the Gulf obtained permission on July 16, 1947, to dually complete their west Grimes No. 4 in the Hobbs Pool. The newers oil zone is produced through the casing and the hyers gas zone is produced through the tubing. The same type of equipment was utilized in this completion as has been utilized in dually completing west Grimes No. 15. Subsequent segregation tests on west Grimes No. 4 have proven that to date an effective seal has been maintained between the tubing and easing.

The reasons that the Gulf Gil Corporation proceeded to dually complete this well without specific authority from the New Lexico Gil Conservation Commission are as follows:

- (1) At the time this well was staked and drilling operations commenced, it was not definitely known that the Byers gas section would be productive on this 40 acre tract. Therefore, it was believed advisable and prudent to determine the productivity of this zone before requesting permission to dually complete west Grimes No. 15.
- (2) by the time the gas productivity of the Byers zone was determined, the New Mexico Legislature was in session and it was not planned to hold an Oil Conservation Commission hearing until March, 1949. Delaying the mechanics of dual completion at the time the rotary rig was in place until official approval was obtained would have entailed considerable extra expense. It is my estimate that the delay would have cost the Gulf Oil Corporation approximately \$7,500 in rig time and mud cost.
- (3) Due to the low productivity of the byers gas section, it would not be economical to drill a separate well to this strata nor is it economical to delay operations so that completion expense will be increased.

Very truly yours,

.....

Paul C. Evans District Engineer Gulf Uil Corporation

BEFORE THE OIL CONSERVATION CONSISSION OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION CONDISSION OF THE STATE OF NEW MEXICO FOR THE FURPOSE OF CONSIDERING:

> CASE NO. 175 ORDER NO. 816

IN THE MATTER OF THE APPLICATION OF GULF OIL CORPORATION FOR AM ORDER AUTHORIZING IT TO DUALLY COMPLETE AND PRODUCE FROM THE HOBES LIME SECTION AND THE BYERS SAND SECTION FROM A SINGLE WELL BORE, ITS WEST GRIVES NO. 15 WELL, LOCATED 990 FEET MORTH OF THE SOUTH LINE AND 2310 FEET EAST OF THE WEST LINE OF SECTION 32, TOWNSHIP 18 SOUTH, RANGE 38 EAST, LEA COUNTY, NEW MEXICO.

ORDER OF THE CONTISSION

BY THE COMMISSION:

This cause came on for hearing at 10:00 o'clock A.M., March 31, 1949, at Santa Fe, New Mexico, before the Oil Conservation Commission of the State of New Mexico, hereinafter referred to as the "Commission".

NOW, on this 19th day of April, 1949, the Commission having before it for consideration the testimony adduced at the hearing of said case 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 although recent experiments tend to show that mechanical packers and other devices are now available for engineeringly successful dual completions, the Commission is not convinced of the soundness of dual completions as a general practice in New Mexico without specific controls over each such project, and the Commission therefore, frowns upon growing tendencies to dually complete wells, before authority is given.

IT IS THEREFORE ORDERED:

1. That effective the 31st day of March, 1949, the Gulf Oil Corporation be and it hereby is granted, permission to dually complete and produce its West Grimes No. 15 well, located 990 feet north of the south line and 2310 feet east of the west line of Section 32, Township 18 South, Range 38 East, N.M.P.M., Lea County, New Mexico, in such manner that gas from the Byers gas sand through the annular space between the tubing and the casing and the Hobbs lime section through tubing by means of packer control, and

PROVIDED that said well shall be completed and produced in such a manner that there will be no commingling within the well bore of the well of gas or oil and gas produced from the two separate strata and,

PROVIDED FURTHER, that said well must be equipped in such a manner that

reservoir pressures may be determined on each of the two specified strata separately and further, that said well must be equipped with all necessary connections required to permit recording neters to be installed and used at any time so that when such meters are installed all natural gas, oil and/or oil and gas from each separate stratum may be accurately measured and the gas—oil ratio determined and provided further, that the operator shall make any and all tests including segregation tests but not excluding other tests and/or determinations at any such times and in such namer as is deemed necessary by the Commission. The original and all subsequent tests shall be witnessed by a representative of the Commission and by representatives of offset operators if any there be, and the results of each test properly attested to by the petitioner and all the witnesses and shall be filled with the Commission within 10 days after the actual completion of each such test and,

PROVIDED FURTHER, that prior to the time said well is dually completed the applicant company shall supply the Cormicsion for its approval, with plat or drawing showing the proposed method and namer of completion together with an electrical or radioactivity log, showing the location and extent of each separate stratum and the proposed perforations, and,

PROVIDED FURTHER, that upon the dual completion of the well the operator shall submit to the Commission a diagrammatic sketch of the mechanical installation which was actually employed to produce the seal from both zones showing tube and location of packers, other devices used, location and extent of perforations, name and depth of each producing horizon and special report of production, gas—oil ratio and reservoir pressure determinations of each horizon at the time of completion.

IT IS FURTHER PROVIDED and so ordered by the Commission that upon failure of the operator to comply with any provision or provisions of this order than the conditions hereunder shall immediately terminate.

IT IS FURTHER ORDERED that jurisdiction in this case is hereby retained by the Commission for such further order or orders as may seem necessary or convenient to the Commission and this case shall not be considered as establishing a precedent of authorizing general dual completions in the Hobbs field

> STATE OF NEW MEXICO OIL CONSERVATION COMMISSION

THOMAS J. MABRY, CHAIRMAN

GUY SHEPARD, 12 MBER

R. R. SPURPAER, SECRETARY

REPORT THE GIL CONSERVATION CONTINUESION OF THE STATE OF NEW NEXTSO

IN THE MATTER OF THE APPLICATION OF:
GULF OIL CORPORATION for an order to
dually complete and produce from the
Hobbs Lime section and the Byers Sand:
section from a single well bore in the
West Grimes No. 15, located 990' from
south line and 2310' from west line of:
Section 32, Township 18 South, Range 38:
East, Lea County, New Mexico.

APPLICATION

COMES NOW THE GULF OIL CORPORATION, hereinafter called the applicant, and shows to the Honorable Oil Conservation Commission of the State of New Mexico that:

- 1. Gulf Oil Corporation is incorporated in the State of Pennsylvania and is duly authorized to do business in the State of New Mexico.
- 2. Gulf Oil Corporation is actively engaged in the exploration, development and production of oil and gas in the State of New Mexico, and that Gulf Oil Corporation is one of the larger producers of crude oil in that state.
- 3. Gulf Oil Corporation is the operator of an oil and gas lease covering the west half of Section 32-185-38E, Lea County, New Mexico, on which leasehold there are 15 producing wells, one of which is the West Grimes No. 15 well.
- 4. The above subject well, presently being tested, is located 990' from south line and 2310' from west line of Section 32-185-38E, Lea County, New Mexico. Top of the San Andres was found at approximately 3985' and porosity in the Hobbs section was encountered at approximately 4020'. Total depth of the well is 4105' and 7" casing is set at 4094'. There are no perforations in the casing opposite the Hobbs section.
- 5. During the drilling of West Grimes No. 15 the Byers sand was encountered between approximately 3670' and 3730', and evidence was obtained by drill stem testing that the Byers section would be productive of gas. Perforations in the 7" casing opposite the Byers sand were made from 3650' to 3675', from 3685' to 3700' and from 3715' to 3730'. A packer, run on 2" tubing, is set in the casing at 4059' so that the Byers sand and Hobbs lime section are segregated. An Ctis side door choke is installed above the packer to permit proper testing of the separate formations, and

to permit separate bottom-hole pressure tests to be made.

- 6. Applicant proposes to produce from the Hobbs lime section through tubing, and to produce from the Byers gas sand through the annular space between tubing and casing in the manner as shown above. This manner of production will prevent commingling within the well bore of hydrocarbons from separate strata.
- 7. Applicant further proposes to test the well immediately after dually completing and at periodic intervals thereafter in accordance with previous orders of the Commission to assure that communication does not exist between the two zones.

Wherefore your applicant prays that this Honorable Commission promulgate an order that will permit dual completion of the Hobbs section and the Byers section in West Grimes No. 15.

Respectfully submitted,

GULF OIL CORPORATION

S. G. Sanderson
Manager of Production

Feb. 17, 1949