

CASE 7403: ARCO OIL AND GAS COMPANY FOR
DOWNHOLE COMMINGLING, LEA COUNTY, NEW
MEXICO

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DOCKET NUMBER

10/23/81

Case No.

7403

Application

Transcripts.

Small Exhibits

ETC

Other

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
DIVISION FOR THE PURPOSE OF
CONSIDERING:

CASE NO. 7403
Order No. R-6817

APPLICATION OF ARCO OIL AND GAS
COMPANY FOR DOWNHOLE COMMINGLING,
LEA COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on November 4, 1981, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 18th day of November, 1981, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

- (1) That due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.
- (2) That the applicant, ARCO Oil and Gas Company, is the owner and operator of the L. L. Steeler WN Well No. 5, located in Unit J of Section 19, Township 23 South, Range 37 East, NMPM, Lea County, New Mexico.
- (3) That the applicant seeks authority to commingle Jalmat Gas Pool and Langlie Mattix Oil Pool production within the wellbore of the above-described well.
- (4) That from the Jalmat gas zone, the subject well is capable of low marginal production only.
- (5) That from the Langlie Mattix oil zone, the subject well is capable of low marginal production only.
- (6) That the proposed commingling may result in the recovery of additional hydrocarbons from each of the subject pools, thereby preventing waste, and will not violate correlative rights.

-2-

Case No. 7403
Order No. R-6817

(7) That the reservoir characteristics of each of the subject zones are such that underground waste would not be caused by the proposed commingling provided that the well is not shut-in for an extended period.

(8) That to afford the Division the opportunity to assess the potential for waste and to expeditiously order appropriate remedial action, the operator should notify the Hobbs district office of the Division any time the subject well is shut-in for 7 consecutive days.

(9) That in order to allocate the commingled production to each of the commingled zones in the subject well, all of the commingled gas production should be allocated to the Jalnet zone, and all of the commingled oil production to the Langlie Mattix zone.

IT IS THEREFORE ORDERED:

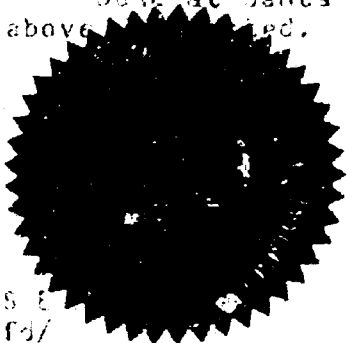
(1) That the applicant, ARCO Oil and Gas Company, is hereby authorized to commingle Jalnet and Langlie-Mattix production within the wellbore of the E. L. Stecker IV Well No. 5, located in Unit 3 of Section 12, Township 24 South, Range 37 East, N42W, Lea County, New Mexico.

(2) That all of the commingled gas production shall be allocated to the Jalnet Gas Pool and all of the commingled oil production shall be allocated to the Langlie Mattix Pool.

(3) That the operator of the subject well shall immediately notify the Division's Hobbs district office any time the well has been shut-in for 7 consecutive days and shall concurrently present, to the Division, a plan for remedial action.

(4) That jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

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



STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

JOE D. RAHEY
Director

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STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
STATE LAND OFFICE BLDG.
SANTA FE, NEW MEXICO

4 November 1981

EXAMINER HEARING

IN THE MATTER OF:

Application of ARCO Oil and Gas
Company for downhole commingling,
Lea County, New Mexico.

CASE
7403

REPORT: Daniel S. Nutter

DEPARTMENT OF HEARING

Oil Conservation
Division
State Land Office Bldg.
Santa Fe, New Mexico 87501

Gary Kilpatric, Esq.
MONTGOMERY AND ANDREWS
Paseo de Peralta
Santa Fe, New Mexico 87501

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A P P E A R A N C E S

For Doyle Hartman: William F. Carr, Esq.
CAMPBELL, BYRD, & BLACK P.A.
Jefferson Place
Santa Fe, New Mexico 87501

I N D E X

B. L. STOKELY

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E X H I B I T S

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1
2 MR. NUTTER: We'll call next Case Number
3 7403.

4 MR. PEARCE: Application of ARCO Oil and
5 Gas Company for downhole commingling, Lea County, New Mexico.

6 MR. KILPATRIC: My name is Gary Kilpatric
7 with the law firm of Montgomery and Andrews, P. A., representing
8 ARCO Oil and Gas, and I have one witness.

9 MR. CARR: My name is William F. Carr,
10 with the law firm Campbell, Byrd, & Black, P. A., Santa Fe,
11 appearing on behalf of Mr. Doyle Hartman.

12 I do not intend to call a witness but
13 I anticipate I will have a statement at the end.

14
15 (Witness sworn.)

16
17 B. L. STOKELY
18 being called as a witness and being duly sworn upon his oath,
19 testified as follows, to-wit:

20
21 DIRECT EXAMINATION

22 BY MR. KILPATRIC:

23 Q Mr. Stokely, would you please state your
24 name for the record?

25 A My name is Ben Stokely.

1

2

3

Q And by whom are you employed and in what capacity?

4

5

A I'm employed by ARCO Oil and Gas Company as a petroleum engineer.

6

7

Q And would you please give a brief description of your duties as a petroleum engineer?

8

9

A I do reservoir studies and recommend drilling and workovers and do log interpretation.

10

11

12

Q Have you testified before the Division and had your qualifications accepted and made a matter of record?

13

14

15

A Yes.

16

17

18

Q Are you familiar with the application that ARCO has submitted in this case today?

19

20

21

A Yes, I am.

22

23

24

25

MR. KILPATRIC: Mr. Examiner, are the witness' qualifications accepted?

MR. NUTTER: They are.

Q What is it that ARCO is seeking today by its application?

A ARCO is seeking approval for the down-hole commingling of the Langlie Mattix-Seven Rivers-Queen formation and the Jalmat-Yates-Seven Rivers formation, in ARCO's E. L. Steeler No. 5 Well.

1
2 Q Mr. Stokely, let me direct your attention
3 to what have been marked as ARCO Exhibits -- ARCO Exhibit
4 Number One, and ask you to identify that exhibit and explain
5 what it shows.

6 A ARCO Exhibit Number One is a map of the
7 area showing the Well No. 5 with a red arrow pointing to it.
8 This lease is located in Section 19, Township 23 South, Range
9 37 East, in Lea County.

10 Q Next let me direct you -- direct your
11 attention to what have been marked as ARCO Exhibits Two and
12 Three and ask you to explain and identify those exhibits.

13 A ARCO Exhibit Number Two is a wellbore
14 diagram showing the well as it is presently completed with
15 a Baker Locset packer set at 3404 separating the zones with
16 a pumping unit, rod pumping unit pumping the Langlie Mattix
17 and the Jalmat-Yates-Seven Rivers perforations above the
18 packer flowing -- or prepared to flow to sales.

19 MR. NUTTER: Through the annulus.

20 A Through the annulus, yes, sir.

21 Q And the Exhibit Number Three?

22 A Exhibit Number Three is the wellbore
23 diagram of the well as we hope to complete it. This well
24 has given a substantial amount of trouble in completion. It
25 was necessary to set the pumping unit on it to pump the

1
2 Jalmat-Yates-Seven Rivers perforations in order to get them
3 to flow and the Langlie Mattix-Seven Rivers-Queen perfora-
4 tions produced only five barrels of oil per day and five
5 barrels of water per day after being fraced with 60,000 gal-
6 lons, plus 102,000 pounds of sand.

7 So it has been a problem well to com-
8 plete and the -- it is our feeling that if we keep it separate
9 we will not be able to produce the Langlie Mattix-Seven
10 Rivers-Queen because the gas that it makes prevents it from
11 being able to pump. We just haven't been able to produce
12 any fluid from it since we set the packer over it.

13 Q Let me next direct your attention to
14 what has been marked as ARCO Exhibit Number Four, a two-page
15 exhibit, and ask you to explain that.

16 A ARCO Exhibit Number Four is the gas/oil
17 ratio tests which have been made on the well, showing the
18 production to be five barrels of oil per day and five barrels
19 of water per day, and 40 Mcf of gas per day from the Langlie
20 Mattix-Seven Rivers-Queen. Now this was done while the
21 wells were unseparated.

22 MR. NUTTER: While they were unseparated?

23 A I mean before -- it was while they were
24 separated.

25 MR. NUTTER: While they were separated.

1
2 A. prior to setting the packer, but it was
3 prior to completion of the Jalmat.

4 MR. NUTTER: Okay. So this was a pure
5 test on the --

6 A. Yes, it is, this is a pure test on the
7 Jalmat. And the Jalmat-Seven Rivers-Yates is a flowing test
8 with them separated after it had been completed.

9 MR. NUTTER: Well, this is a flow test
10 up the annulus.

11 A. That's right, up the annulus. We did
12 have to pump it through the tubing for some time before we
13 got it cleaned up enough to flow on its own.

14 MR. NUTTER: You have a sliding sleeve
15 in there.

16 A. Yes, we do.

17 MR. NUTTER: And pumped it off and
18 flowed it through the annulus.

19 A. That's right, and it's been a real
20 problem to get going.

21 Q. Let me next direct your attention to
22 what has been marked as ARCO Exhibit Number Five and ask you
23 to explain that exhibit, which is a multi-page exhibit, one,
24 two, three, four, five pages exhibit.

25 A. ARCO Exhibit Number Five is the daily

1
2 well history of the well containing all the actions that have
3 been taken, that have taken place since the casing was set,
4 showing the bottom hole pressure tests taken, various pipe
5 settings, packer setting, and so forth. It will verify the
6 information in the wellbore diagrams and in the other sets
7 of information.

8 Q Mr. Stokely, what is the current status
9 of this well?

10 A The well is completed but shut-in. It
11 is as indicated in the first wellbore diagram. It has rods
12 and pump in it. It has a Baker Locset packer and it is
13 shut-in awaiting the outcome of this hearing.

14 Q Have you applied to the Division for
15 dual completion?

16 A We have not because our information to
17 date indicates that we would have to abandon the Langlie
18 Mattix at this -- if we're not granted permission to commingle.

19 Q What are the bottom hole pressures of
20 the Langlie Mattix and Jalmat?

21 A Bottom hole pressures of the Jalmat are
22 215 pounds and the Langlie Mattix is 195 pounds. That's
23 corrected to equivalent depth.

24 Q All right, and what pressure differ-
25 ential for the two zones does this correspond to?

1

2

A. That's twenty pounds differential.

3

4

Q. Is there any evidence that the fluids produced from these two zones are incompatible?

5

A. No, there is not.

6

7

8

Q. And will the total value of the crude oil be reduced by the commingling sought here, and if not, why not?

9

10

11

A. No, since only one zone produces crude oil, the same crude oil will be sold and will not have its value changed.

12

13

Q. And is the ownership of the zones to be commingled common?

14

15

A. Yes, the zones are commonly owned by ARCO as the operator.

16

17

18

Q. Do you have an opinion as to whether the commingling sought here today will jeopardize the efficiency of present or future secondary recovery?

19

20

21

A. It will not and if any question should arise in the future ARCO stands ready to separate the zones if required.

22

23

24

Q. All right. I understand that the production from the Langlie Mattix is artificially lifted while the Jalmat is by natural flow, is that correct?

25

A. That is true; however, over a period

1
2 of time in the area we're talking about, the Jalnat tends to
3 load up with water and it is anticipated that if we keep this
4 flowing through the annulus in a period of time we'll have
5 to take some measures to unload the water off, and during that
6 time we will lose production.

7 Q Mr. Stokely, next let me direct your
8 attention to ARCO Exhibits Six and Seven and ask whether or
9 not you have -- to explain those exhibits and tell the Division
10 what you've done as far as contacting the offset --

11 A ARCO Exhibit Number Six is a letter that
12 we sent to all the offset operators and we sent that register-
13 ed mail. And Exhibit Number Seven is a list of the offset
14 operators that we sent this to.

15 Q And are you aware to any objection from
16 any of the offset operators?

17 A We had some conversation with Mr. Aycock
18 with Doyle Hartman, and we were able to agree on an approach
19 to this. The subject of our conversation was the allocation
20 of gas between zones.

21 Mr. Aycock was of the opinion that the
22 gas should be allocated for allowable purposes to the Jalnat
23 formation and ARCO has no objection to that.

24 Q And have you received any correspondence
25 from any of the other offset operators stating that they

1
2 have no objection?

3 A. Yes. We have correspondence here from
4 Mr. James L. Evans saying he approves, and from Coquina Oil
5 Corporation saying they approve.

6 We have heard from none of the others
7 except Mr. Aycock.

8 Q. Mr. Stokely, how would you allocate the
9 gas from the commingled well?

10 A. In light of our conversation with Mr.
11 Aycock, we would agree that we would recommend it be allocated
12 to the Jalmat formation.

13 Q. In your opinion will the granting of
14 ARCO's application in this case to downhole commingle the
15 production from the Jalmat and Langlie Mattix formations
16 prevent waste and protect correlative rights?

17 A. Yes, it will. It will prevent waste in
18 that we will have to abandon this Langlie Mattix formation
19 if we don't get this permission.

20 Q. Were ARCO Exhibits One through Seven
21 prepared by you or under your supervision?

22 A. Yes, they were.

23 MR. KILPATRICK: Mr. Examiner, I move
24 the introduction of ARCO Exhibits One through Seven.

25 MR. NUTTER: Exhibits One through Seven

1
2 will be admitted in evidence.

3 MR. KILPATRIC: And we have no further
4 questions.

5
6 CROSS EXAMINATION

7 BY MR. NUTTER:

8 Q Mr. Stokely, this list of offset opera-
9 tors doesn't include Hartman or Aycok. Why were they talking
10 about the allocation of the gas?

11 A Well, Mr. Hartman is an offset operator
12 and I thought we had sent him a copy.

13 Q He's not listed on Exhibit B or Exhibit
14 Seven.

15 MR. KILPATRIC: That's correct. He's
16 not listed on those exhibits but we have in fact been in
17 several conversations and contact and Mr. Carr is here today
18 representing him.

19 MR. NUTTER: He probably owns the gas
20 rights here on one of these offsetting leases.

21 A Yes, he does.

22 MR. CARR: He's also the operator of a
23 well in Unit E, the Samedan Hughes Federal, which produces
24 from the --

25 MR. NUTTER: Is that a gas well there,

1
2 Mr. Carr?

3 MR. CARR: I think so, yes. I don't
4 have an exhibit but I think that's correct, Mr. Nutter.

5 Q Okay. However, Mr. Stokely, ARCO here
6 does own the --

7 A Yes, sir.

8 Q -- Jalmat gas.

9 A Yes.

10 Q It would just be that the offset opera-
11 tor, Mr. Hartman, wants to be sure that the gas that's pro-
12 duced from it is charged to the --

13 A That's right.

14 Q -- Jalmat rather than the Langlie Mattix

15 A That's right. His idea is to protect
16 his top allowable well there, and we have no objection be-
17 cause our projection from the well that we have is that we're
18 going to be able to make our allowable anyway, likely.

19 Q Well now I see here in the south half
20 of Section 19 three wells are indicated as being gas wells --

21 A Yes, sir, and we --

22 Q -- and they may be plugged, I don't
23 know.

24 A I think one of them is and we have a --
25 we've dedicated the acreage part to this well and part to

1
2 another well.

3 Q Have you already gotten approval for --

4 A Yes, sir.

5 Q -- simultaneous dedications?

6 A Yes, sir.

7 Q Okay. All you're looking for here today
8 is just the comingling, not the --

9 A That's right.

10 Q -- gas --

11 A No, sir, just permission to try to pro-
12 duce that Langlie Mattix because there's no way we can pro-
13 duce it economically any other way.

14 Q Do you think if you had a casing vent
15 that you'd fail to produce it? It won't pump. Is it a lack
16 of venting on the thing, or what?

17 A It is a lack of venting and the small
18 casing, 5-1/2 casing, I think would be difficult to make it
19 work.

20 Q Couldn't run a vent string, then.

21 A It would not likely be trouble free.
22 We'd probably have problems with the vent string.

23 Q Okay. Now you mentioned that the pres-
24 sures were 215 for the Jalmat and 195 for the Langlie Mattix
25 corrected to a common datum. What were the actual pressures?

1
2 Do you have that anywhere?

3 A. Well, we had a 200 pound shut-in casing
4 pressure on the Jalmat and the actual pressure was measured
5 on the Langlie Mattix and it was measured by bottom hole pres-
6 sure bomb.

7 Q. And how much was it?

8 A. 195.

9 Q. Okay, so in other words, you took your
10 215 shut-in casing pressure on the Jalmat --

11 A. And used the table.

12 Q. -- adjusted to the datum in the Langlie
13 Mattix.

14 A. Yes, sir.

15 Q. Where you had 195.

16 A. Yes, sir.

17 Q. And that 200 shut-in casing pressure
18 corrected to 215.

19 A. That's right.

20 Q. These are at the Langlie Mattix inter-
21 face?

22 A. Yes, sir.

23 Q. Okay.

24 MR. NUTTER: Are there any further
25 questions of the witness? He may be excused.

1
2 Do you have anything further, Mr. Kil-
3 patric?

4 MR. KILPATRIC: Nothing further, thank
5 you.

6 MR. NUTTER: Mr. Carr?

7 MR. CARR: I just have a very brief
8 statement.

9 Mr. Hartman is of the opinion that what
10 ARCO is recommending is consistent with what the Commission
11 did in Case 7057, in which they allocated gas and oil between
12 the Jalmar and Langlie Mattix Pools. We believe what they're
13 asking for is reasonable and will give them the necessary in-
14 centive and ability to produce the Langlie Mattix, and we
15 support the application.

16 MR. NUTTER: Thank you.

17 Does anyone else have anything to offer
18 in Case Number 7403?

19 We'll take the case under advisement.

20
21 (Hearing concluded.)
22
23
24
25

the foregoing manuscript of the play, and the conservation
 then published and reported by me; that the said manuscript
 is a full, true, and correct record of the hearing, prepared
 by me to the best of my ability.

Sally W. Boyd CSR

SALLY W. BOYD, C.S.R.

Rt. 1 Box 1914

Santa Fe, New Mexico 87501

Phone (505) 435-7409

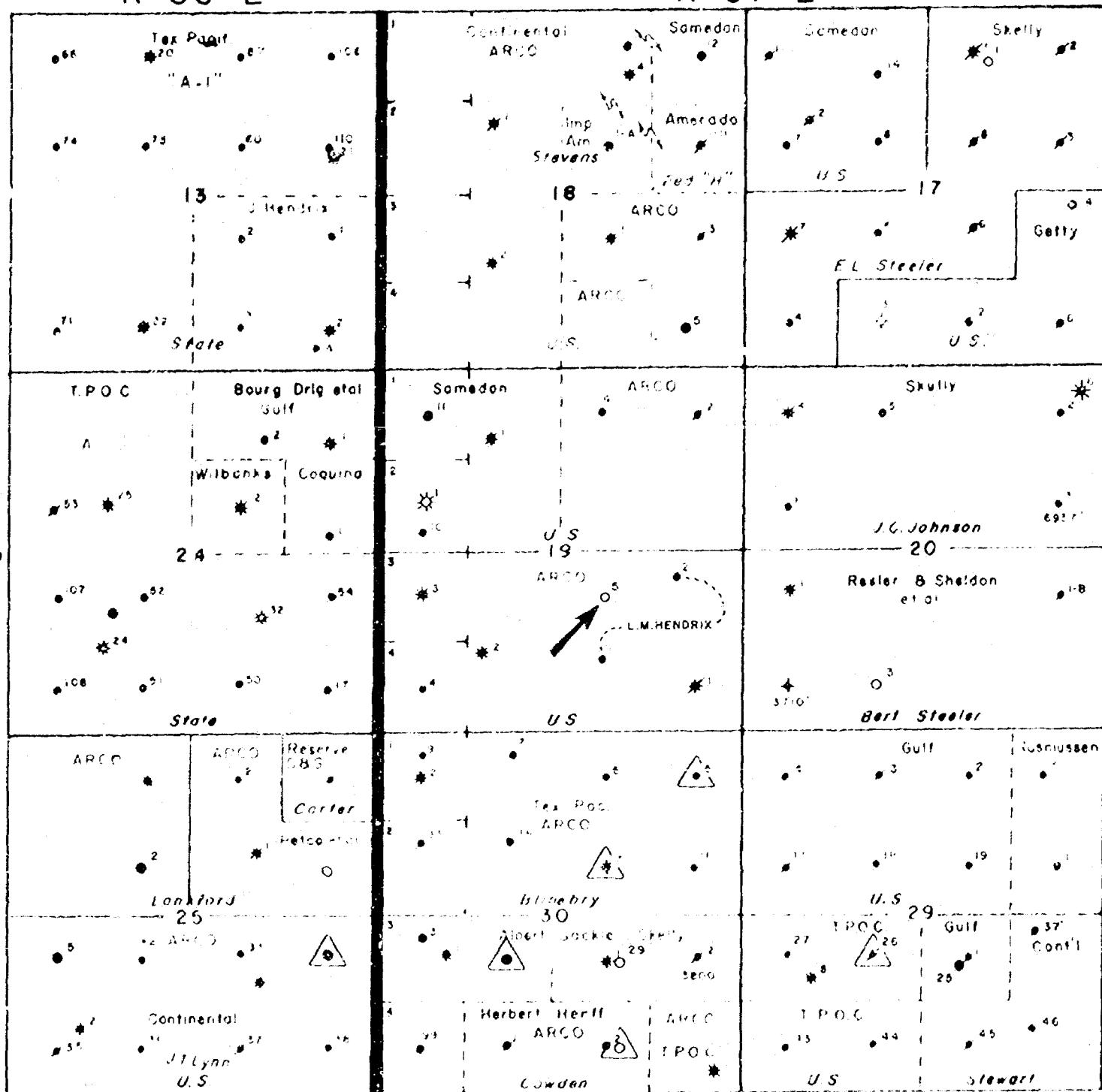
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[Signature]

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ARCO 1
 7403

ARCO Oil and Gas Company

Permian District Midland, Texas

LEA COUNTY, NEW MEXICO

E.L. Steeler Lease
 Sec 19 T-23-S R-37-E

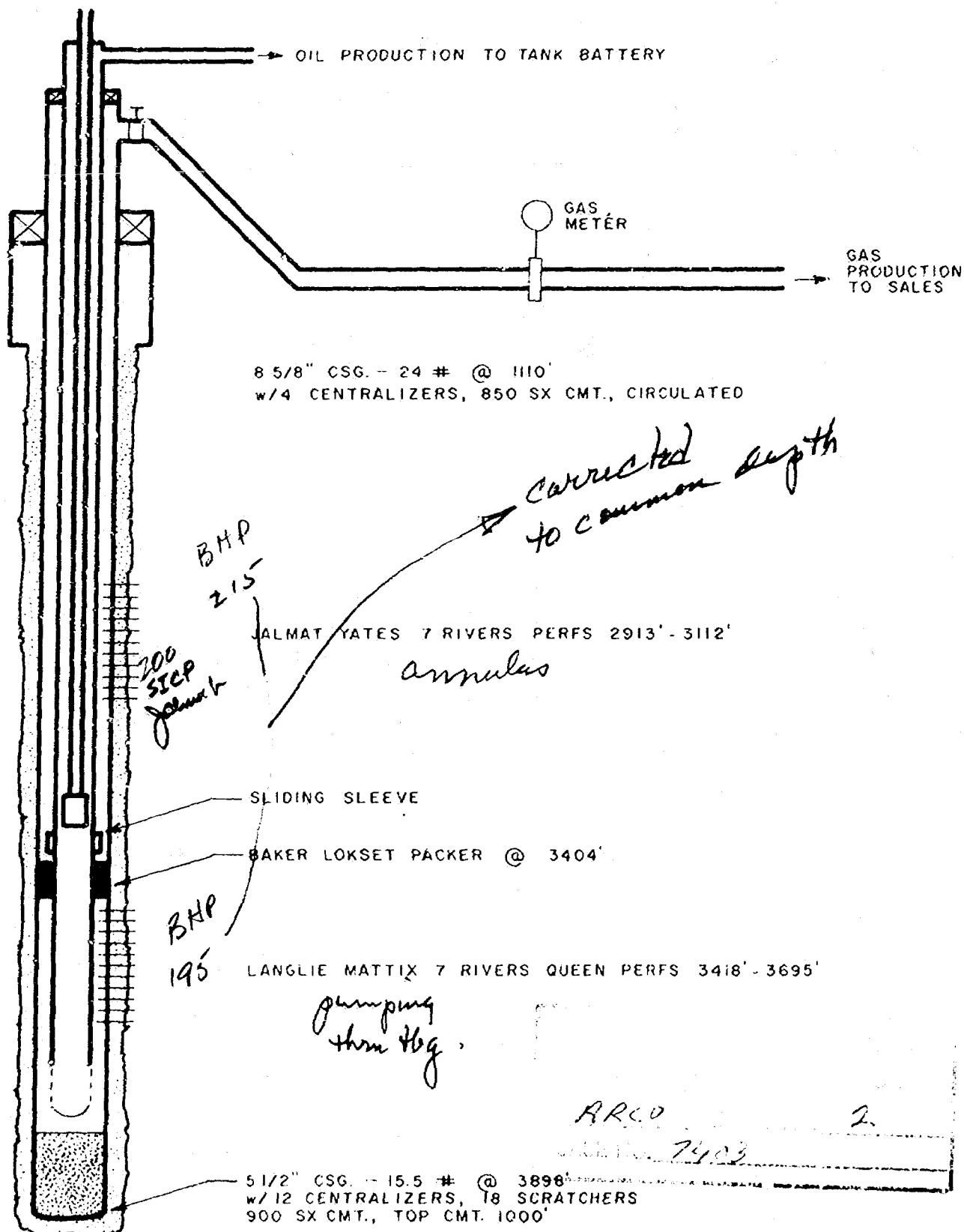
SCALE 1" = 2000'

By B. STOKELY	Date 10-81
Scale 10-81	Date
WEST AREA ENGR.	Date

ARCO OIL & GAS COMPANY

E. F. STEELER NO. 5

ZONES SEPARATED



ARCO OIL & GAS COMPANY

E. F. STEELER NO. 5

ZONES COMMINGLED

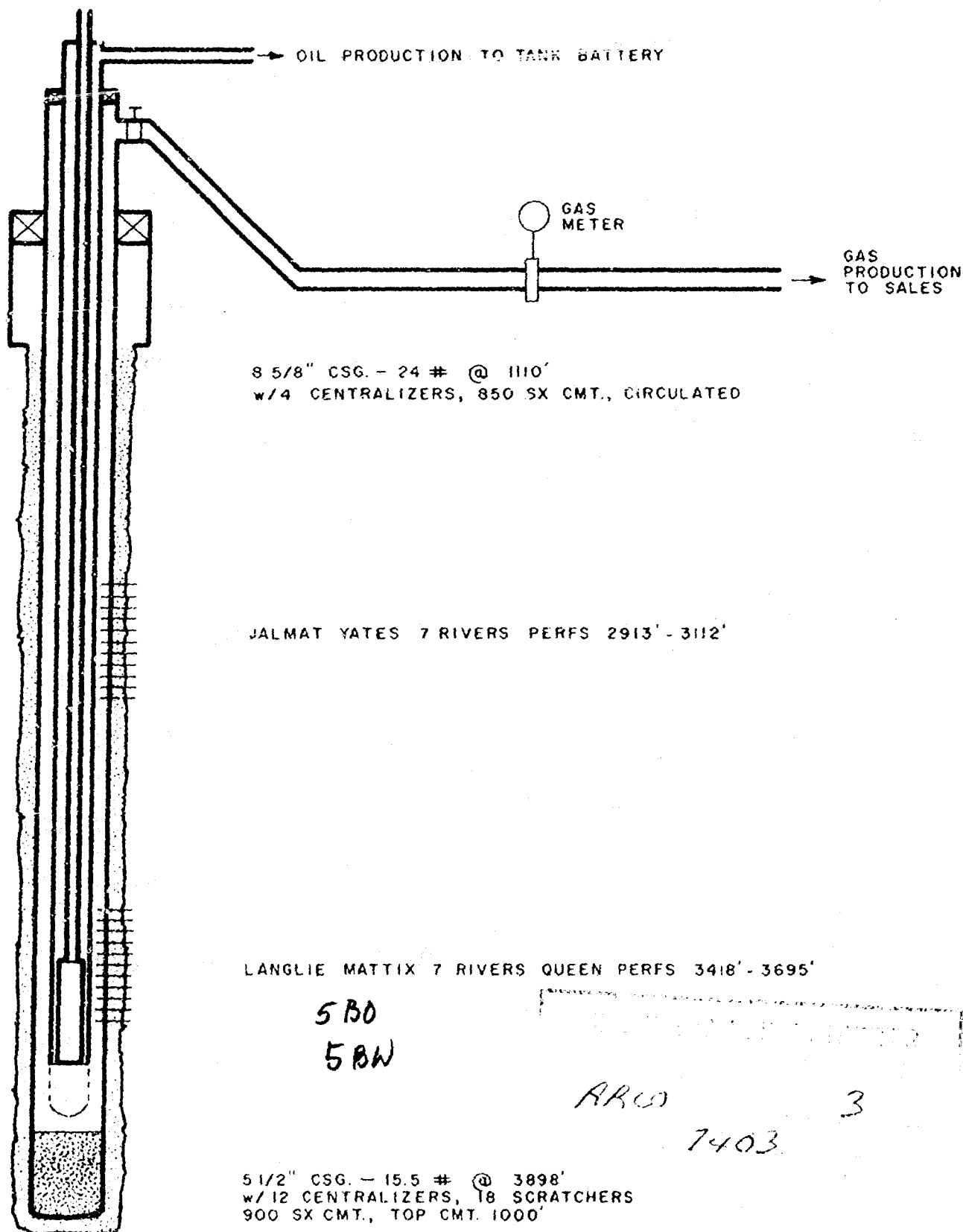


EXHIBIT "A" - page 1

No well will be assigned an allowable greater than the amount of oil produced on the official test.

During gas-oil ratio test, each well shall be produced at a rate not exceeding the net unit allowable for the pool in which well is located by more than 25 percent. Operator is encouraged to take advantage of this 25 percent tolerance in order that well can be as efficiently increased allowable when authorized by the Commission.

Gas volumes must be reported in MCF measured at a pressure base of 15.025 psia and a temperature of 60° F. Specific gravity base will be 0.60.

Report casing pressure in lieu of tubing pressure for any well producing through casing.

Well original and one copy of this report to the district office of the New Mexico Oil Conservation Commission in accordance with Rules DDI and appropriate regulations.

September 25, 1981

EXHIBIT "A" - page 2

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

B. L. Stokely
B. L. Stokely (Signature)
Senior Engineer

September 25, 1981 ^(Tides)

Instructions: This form is used during drilling or workover operations. If testing, coring, or perforating, show location on form in describing work performed. Number all drill stem tests sequentially. Attach description of all cores. Work performed by Producing Section will be reported on "Interim" sheets until final completion. Report official or representative test on "Final" form. 1) Submit "Interim" sheets when filled out but not less frequently than every 30 days, or (2) on Wednesday of the week in which oil string is set. Submit weekly for workovers and following setting of oil string until completion.

District	County or Parish	State
Permian-West	Lea	New Mexico
Field	Lease or Unit	Well no.
Jalmat	E. L. Steeler WN	5
Date and depth as of 6:00 a.m.	Complete record for each day while drilling or workover in progress	
6/25/81 3898' TD 3805' PBD	Prep to swab LM zone & run BHP survey// Bled off tbg & csg. Csg flwg gas. Pmpd 25 bbl of 2% KCl da csg to kill well. Unseated pkr, inst BOP. POH, rec WL tool. Ran BP jt tbg, perf sub, 2 jts 2-3/8" tbg, Baker Lok-set pkr, on-off tool w/ 1.56 ID, 6' 2-3/8" tbg sub, Baker sliding sleeve w/1.81 ID & 109 jts 2-3/8" OD tbg. Set tbg @ 3505'. Tbg perf 3470-73', Pkr @ 3404', on-off tool @ 3402', sliding sleeve @ 3394'. Swbd tbg for 1 1/2 hrs w/pkr swinging. Csg started to gassing. Set pkr & cont'd swbg tbg to pit. (-110 BL). In 4 hrs swbd 0 BO & 26 BW. (-84 BW).	
6/26/81	Prep to flow Jalmat gas, run LM BHP// 14 hr SITP 150#. 16 hr SICP 125#. In 5 hrs swbd LM, rec 1 BO & 9 BW. IFL 3000', FFL 3150'. Ran btm hole press bomb w/24 & 72 hr clock in hole @ 12:30 PM, 6/25/81. SI for 24 hrs. (AFE \$299,400; \$293,871)	
6/29/81	RD PU// 6/26 18 hrs SITP 150#, SICP 190#. Op csg, bled gas off to a lite blow. Pld press survey. In BHP 157#, 24 hr BHP 183#. Set plug @ 3402'. Op sleeve @ 3394'. Swbd csg thru tbg, rec 6 BW, no oil in 8 trips. IFL 3000', FFL 3250'. SION. 6/27 Swbd 0 BO & 4 BW, IFL 3000'..Gas broke around csg. Flwd thru tbg. Closed sliding sleeve & pld plug. Ran 2 x 1 1/2 x 12' pump, 1 2' x 3/4" pony rod, 119 3/4" rods, 2 6', 2 4', 1 2-3/4" pony rod. Started well pmpg. SICP 200#.	
6/30/81	TOTPS// RD unit. (AFE \$299,400; \$299,691)	

The above is correct

Signature J.W. Schmidt

Date 6/30/81

Title Dist. Drlg. Supt.

For form preparation and distribution
see Procedures Manual Section 10,
Drilling, Pages 85 and 87

ARCO

7903

5

Received
7/16/81
Control
Baker

Number all daily well history forms consecutively
as they are prepared for each well.

Page no.

6

Instructions: This form is used during drilling or workover operations. If testing, casing, or perforating, show formation name in describing work performed. Number all drill stem tests sequentially. Attach description of all tests. Work performed by Producing Section will be reported on "Interim" sheets until final completion. Report official or representative test on "Final" form. 1) Submit "Interim" sheets when filled out but not less frequently than every 30 days, or (2) on Wednesday of the week in which oil string is set. Submit weekly for workovers and following setting of oil string until completion.

District	County or Parish	State
Permian-West	Lea	New Mexico
Field	Lease or Unit	Well no.
Jalmat	E.J. Steeler WN	5

Date and depth
as of 8:00 a.m.

Complete record for each day while drilling or workover in progress

5/29/81 3898' TD
3817' PBD Flwg well to pit to clean up//
Well flwg on 50# TP thru 1" orifice plate, flwg in heads, making gas
& water. (AFE \$299,400; \$269,177)

6/01/81 Tstg//
5/30- CP 110#, TP 40# 20/64" ck. Flare to pit. Making salt
wtr. 6/01- CP 110#, TP 40# 20/64" ck. Flare to pit. Making
salt wtr. Head up about ever 2 hrs. Making approx 90 MCF, 5
or 6 Bbl salt watr per 24 hrs.

6/02/81 Flow tstg well//
Flow well from csg 3 hrs, quit making wtr. Hook up gas tester
Flow from csg, making 296 MCF. No wtr. TP 110#, CP 40#, Flow
thru 1" plate.

6/03/81 Close sleeve & pull plug//
6/02-SITP 200#, SICP 210#. Flow well from csg. CP 40#, TP 110#. Making
296 MCF, dry gas thru 1" orifice.

6/04/81 WSI for 24 hr btm hole press test//
Close sliding sleeve @ 3302'. Bled TP to 0#. Attempt to
pull plug. Lost tools in hole. Plug went thru profile. Ran
1 1/2" OD bars thru profile. Tools left in 2-3/8" tbg @ 3309'.
Ran 24 hr BHP survey. SION. 6/03/81 @ 7:00 AM CP 200#,
TP 200#.

6/05/81 RD PU//
SITP 100#, SICP 200#. Pld bomb, no results. BHT 83.86°F. Ran 2" x 1 1/4" x 12'
pump, 116 3/4" rods, 1 2' sub & 1 4' sub. (AFE \$299,400; \$287,134)

6/08/81 Temp drop from report//
Jalmat SI WO prod equip. Langlie Mattix side did not pump up.

6/24/81 Prep to trip tbg & pkr//
(temp dropped 6/08/81) MIRU. Bled well off. Pld rods & pump. CP 130#. SION.

The above is correct

Signature	Date	Title
J.W. Schmidt	6/30/81	Dist. Drig. Supt.

For form preparation and distribution
see Procedures Manual Section 10,
Drilling, Pages 86 and 87

Received
7/10/81
Central
Person

Number all daily well history forms consecutively
as they are prepared for each well.Page no.
5

Instructions: This form is used during drilling or workover operations. If testing, casing, or perforating, show full details in describing work performed. After all drill stem tests sequentially. Attach description of all cores. Work performed by Producing Section will be reported on "Interim" sheets until final completion. Report official or representative test on "Final" form. 1) Submit "Interim" sheets when filed or not less frequently than every 30 days, or (2) on Wednesday of the week in which oil string is set. Submit weekly for workovers and following setting of oil string until completion.

District	County or Parish	State
Permian-West	Lea	New Mexico
Field	Lease or Unit	Well no.
Jalmat	E.L. Steeler WN	5
Date and depth as of 6:00 a.m.	Complete record for each day while drilling or workover in progress	
4/13/81 3898'TD 3805'PBD	Tstg// (temp dropped 3/18/81.) 4/11-In 24 hrs pmpd 7 BO & 2 BW. 4/12-In 24 hrs pmpd 13 BO, 5 BW & 40 MCFG, GOR 3077:1.	
4/14/81	Tstg// In 24 hr pmpd 4 BO, 2 BW & 50 MCFG, GOR 12,500:1.	
4/15/81	Pump trouble// 0 BO, 0 BW.	
4/16/81	No report//	
4/20/81	Pump trouble, no prod// 4/16-In 24 hrs pmpd 0 BO, 0 BW & 50 MCFG.	
4/21/81	No test// Pld pump.	
4/22/81	Tstg// In 24 hrs pmpd 19 BO, 2 BW & 39 MCF, GOR 2053:1.	
4/23/81	Tstg// In 24 hrs pmpd 17 BO, 5 BW & 35 MCF, GOR 2059:1.	
4/24/81	Tstg// In 24 hrs pmpd 6 BO, 11 BW & 40 MCF, GOR 6667:1.	
4/27/81	WO prod equip, temp drop// 4/24-In 24 hrs pmpd 4 BO, 5 BW & 35 MCF.	
5/15/81	On 24 hr test 5/03/81 pmpd 3 BO, 2 BW & 38 MCF, GOR 12,667:1.	
5/27/81	Rel "FL" Tool, spot acid// MIRU PU. POH w/rods & pump. Tag btm for fill. POH w/2-3/8" tbg. RIH w/Baker Lok-set pkr "FL" tool (1.51 ID) & sliding sleeve (1.81 ID). Ran 3 jts of 2-3/8" tbg & 4' perf nipple below pkr, pkr set @ 3212'.	
5/28/81	Test Jalmat perfs// 7:00 AM TP 175#, CP 210#. Spot 250 gal 15% acid, perfs 2913-3112'. POH w/2-3/8" tbg. Welox perf'd 1 JSPF @ 2913, 18, 24, 30, 37, 44, 50, 56, 62, 68, 73, 90, 94, 99, 3024, 36, 52, 58, 63, 68, 76, 3108, 12' (23 holes). Lost gun in hole. RIH w/OS. POH w/perf gun. Well started flwg. Pmpd 30 bbl KCL wtr in hole. Ran 2-3/8" tbg & slide sleeve in hole. NU. Tbg plugged. Unable to swab. 5/28/81 CP 200#.	

The above is correct

Signature

J.W. Schmidt

Date

6/01/81

Title

Dist. Drlg. Supt.

For form preparation and distribution
see Procedures Manual Section 10,
Drilling, Pages E6 and 87

This form is used for recording of well operations. It is to be completed by the operator or his representative. Work performed by Production Section will be recorded on "Interim" sheets until final completion. It is to be filled out at the end of each shift on "Final" form. It is to be filled out at the end of each shift on "Interim" sheets when filled out but not less frequently than every 30 days, or (2) at the end of the work in which oil string is set, without weekly for workovers and following setting of oil string until completion.

Field	County or Parish	State
Fernian - West Area	Ica	New Mexico
Lease	Lease or Unit	Well no.
Alamat	E. L. Steeler WN	5

Date and time		Complete record for each day while drilling or workover in progress
3/09/81	3898' TD 3805' PBD	- Rec lead & test// 3/07- Swab Langlie Mattix fm 3418-3695', IFL 3300', no fluid rec. Frac'd 3418-3695' w/40,000 gals gel wtr, 20,000 gal CO ₂ , carrying 69,000# 20/40 sd & 33,000# 10/20 sd in 3 equal stages using 7/8" 1.1 gravity ball sealers to divert. 200# ball action. Min 2400#, max 2700, AIR 15 BPM, ATP 2600#, ISIP 1200#, 15 mins 900#, 3 hrs 400#. Flush in @ 10:20 AM. Started flwg back @ 1:20 PM. (-1452 BLW) Flwd back 73 BLW in 7 hrs. (-1379 BLW). 3/08- SITP 300#. Bled press off. In 10 hrs swbd 4 BNO & 37 BLW, good show of gas, IFL 1000', PFL 3300'. (+4 BO, -1342 BLW).
3/10/81		SITP 200#. Swbd Langlie Mattix fm 3418-3695', IFL 2800'. In 10 hrs swbd 10 BO & 21 BLW. Last hr rec 1 BL. PFL 3300'. (+14 BO, -1321 BLW).
3/11/81		SITP 175#. Swbd Langlie Mattix 3418-3695', IFL 2900'. In 10 hrs swbd 7 BO & 15 BLW. (+21 BO, -1306 BLW). Good show of gas.
3/12/81		- Trip sand bailer// SITP 175#. Swab Langlie Mattix fm 3418-3695', IFL 2900'. In 2 hrs swbd 1 BO & 2 BLW, PFL 3300'. (-1304 BW, +22 BO) Good show of gas. Rel pkr. Tag fill @ 3655'. POH. ID 2-7/8" tbg. PU 2-3/8" tbg & Hydrostatic bailer. RTH. CO 3655-3695'. Bailer quit loading. Pull 8 stds. SION.
3/13/81		- Trip out w/bit// POH w/ Hydrostatic bailer. RTH w/bailer. CO sd 3695-3725'. Rerun bailer to 3725' unable to make any hole. POH. Ran 4-3/4" bit to 3725'. Circ sd out 3725-3805'. Pull 6 stds.
3/16/81		3/14- POH w/bit. Test tbg in hole to 3500#, 1 jt bull plug and anchor, perf nipple, SN, & 119 jts 2-3/8" tbg. RD BOP, Hook up WH. Swab Langlie Mattix fm 3418-3695', IFL 3100'. In 4 1/2 hrs swbd 24 BLW, tr of oil, PFL 3650'. SION. (+22 BO, -1580 BLW). 3/16- Swbd 3418-3695', IFL 3100'. In 8 hrs swbd 35 BLW w/tr of oil, PFL 3650'. (+22 BO, -1545 BLW).
3/17/81		- TOTPS// Swab Langlie Mattix 3418-3695', IFL 3100'. In 6 hrs swbd 4 BO & 19 BLW, PFL 3650'. (+26 BO, -1526 BLW). Ran 2" x 1 1/2" x 12' pump, 1 2" x 3/4" pony rod, 1 1/2" x 3/4" rod, 1 6" x 3/4" pony rod. RR. SION.
3/18/81		NO prod equip, Temp drop//

At the end of each shift

Signature

J. W. Schmidt

Date

4/15/81

Title

Dist. Dirg. Supt.

For form, preparation and distribution see Production Manual Section 10, Section 10, Pages 66 and 67

For form, preparation and distribution see Production Manual Section 10, Section 10, Pages 66 and 67

Page no.

3.

10. Oil changes. This form is used to monitor the oil change record. If test rig, engine or pulsometer show lubrication problems in descending work, give lead time for oil change to the crew. After the oil change is completed, the work is returned to the test rig. The oil change will be recorded on "Interim" sheets until final inspection is completed. The oil change must be completed within 11 days of the "Interim" sheet when the oil change is not less frequently than every 30 days, or (2) the duration of the work in which the pump out. This is usually for workovers and follow up setting of oil string until completion.

Project	County or Parish	State
Permian - West Area	Lea	New Mexico
Field	Owner or Unit	Well No.
Jalisco	E. L. Steeler WN	5

THE UNIVERSITY OF CHICAGO
CHICAGO, ILL. 60637

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2/02/81 3898' TD

-- MORT. WOCU, temp drop//

LD DP. Ran 5½" K-55 LTC 15.50# Jones & Laughlin Steel Corp csg as follows: 1 Howco FS @ 3898', 2 jts 5½" csg, 1 Howco FC @ 3817' & 93 jts 5½" csg. Ran 12 cent & 18 scratchers. Card 5½" csg w/ 650 sx HLC w/15# salt & 250 sx Cl H thickset, didn't circ cnt. PD @ 2:45 PM CST, 1/30/81. Cut off csg & NU well head. Wait 8 hrs, ran temp survey. TOC @ 1000'. RR 6:00 PM CST, 1/30/81.

3/02/81

-- Displ hole w/KCl wtr//

(temp dropped 2/02/81) 2/28- MIRU PL. Inst BOP. SION.
Ran 4-3/4" bit, egg scraper & 2-7/8" J-55 tbg to 3805'. Test
tbg to 4000#. SION.

3/3/81

RU, tstd csg to 1500#. Displ 5½" csg w/ 2% KCl wtr. Spot 300 gal 15% NE HCl acid across perf interval 3418-3595'. POR. Welox ran cnt bond log 3802' to surf. TOC @ 1110'. Perf'd Langlie Matrix selectively 3418-3695' (29 holes). Ran pkr to 3308' on 2-7/8" tbg. BDF 500#. Acidized Jalmat 3418-3695' w/ 2000 gal 15% NE HCl acid, 3 ball sealers every 3.5 bbls acid. Ball off perfs @ 4000# w/33 balls on perfs. Max 4000#, min 500#, AIR 4 BPM @ 2000#, ISIP 1500#, 5 min 1000#, 1 hr 0#. Rel pkr. Ran dn thru perfs. Reset pkr @ 3308'. STON. (-130 BLW).

3/4/81

-- Prep to frac!!

Swdb perfs 3418-3695' 10 hrs. Rec 22 BLW. Last 7 hrs rec 1 BLW, show of oil. IFL 400', FFL 3800'. (-108 BLW.)

3/5/81.

SMBG 3418-3695'. Bore 2 BW. FFL 3300'. Made 2 swab runs. FFL 3300'. Dresser frac'd Longlie Matrix fm 3418-3695' w/ 40,000 gals gel wtr, 20,000 gal CO₂ carrying 69,600# 20/40 sd & 33,000# 10/20 sd in 3 equal stages using 7/8" 1.1 gravity ball sealers, 10 following stage 1 & 10 following stage 2. No apparent ball action, but trtg press were 200# higher on each consecutive stage. Min 1800#, Max 2500#, AIR 15 BPM, ATP 2000#, ISIP 1000#, 15 min 800#, 1 hr 400#, 3 hr 350#. Flush in @ 10:20 AM. Started flwg back @ 1:20 PM. (-1088 BW). Flwd back 37 bbls in 4½ hrs on ½ to 3/4" ck. FFP 50# on 3/4" ck. (-1051 BW). SION.

3/6/81

.. Prep to re-fac//

On checking frac tanks found only 40% of frac fluid vol had been pumpd. Will re-frac Langlie Mattix fm. Subd Langlie Mattix 3412-3595', 1FL 300'. In 7 hrs subd 15 BW, 1FL 3300'. Last 2 hrs rec 1 BW w/tr of oil. Rel pkr. Check for fill up. Tag fill @ 3745'. Re-set pkr @ 3308'. Load annulus w/ 2% FCL wtr. Pump subg Langlie Mattix fm. (472 FL).

the above is correct

Super-Duper

J. W. Schmidt

13.0

4/15/81

Page

Diet. Belg. Supt.

For further information on this and other
 titles, contact the publisher at 10
 Bedford Row, London WC1R 4EJ.

1. I am very glad to hear that you are well.

1102

ARCO Oil and Gas Company
Permian District
Post Office Box 1610
Midland, Texas 79702
Telephone 915 684 0100



Gentlemen:

RE: E.L. Steeler #5 (Unit Letter J)
Section 19, T23S, R37E
Lea County, New Mexico
Application for Downhole Commingling

ARCO Oil & Gas Company has made application to dual complete and downhole commingle the subject well. A copy of the application is attached for your information.

If you have no objection to this commingling, will you please sign in the space provided and forward the approved copy to our attorney, Mr. Gary Kilpatrick in the enclosed stamped and addressed envelope.

If the Oil & Gas Division is unable to grant administrative approval, it is anticipated that the case will be heard at the next examiners hearing on November 4, 1981.

We trust that the attached application will provide enough information for your approval. If more information is required, please contact the writer.

Yours very truly,

B. L. Stokely

B. L. Stokely
(915) 684-0152

BLS:cn

Attachments

ARCO

6

7403

APPROVED:

E. L. Steeler Lease
S/2 Section 19, T-23-S, R-37-E,
Lea County, New Mexico

Offset Operators:

Sun Texas Company
1509 West Wall
Midland, Texas 79701

Gulf Oil Company
P. O. Box 1150
Midland, Texas 79702

Coquina Oil Company
P. O. Drawer 2960
Midland, Texas 79702

Samedan Oil Company
900 Wall Towers East
Midland, Texas 79701

Getty Oil Company
P. O. Box 1231
Midland, Texas 79702

Reserve Oil and Gas Company
312 HBF Building
Midland, Texas 79701

James L. Evans V
P. O. Box 1125
Eunice, New Mexico 88231

V = waived objection
Hartman wants
see gas allocated
to Jalmar

KRW 7
7403

Dockets Nos. 36-81 and 37-81 are tentatively set for November 19 and December 4, 1981. Applications for hearing must be filed at least 21 days in advance of hearing date.

DOCKET: EXAMINER HEARING - WEDNESDAY - NOVEMBER 4, 1981

9 A.M. - OIL CONSERVATION DIVISION CONFERENCE ROOM
STATE LAND OFFICE BUILDING, SANTA FE, NEW MEXICO

The following cases will be heard before Daniel S. Matter, Examiner, or Richard L. Stamets, Alternate Examiner:

- CASE 7396: In the matter of the hearing called by the Oil Conservation Division on its own motion to permit Sentry Oil Exploration Company and Lawyers Surety Corporation to appear and show cause why Furr Well No. 1, located in Unit G of Section 6, Township 31 North, Range 34 East, Union County, New Mexico, should not be ordered plugged and abandoned in accordance with a Division-approved plugging program.
- CASE 7380: (Continued and Readvertised)
- Application of Bird Oil Corporation for an unorthodox location, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox Entrada location of a well to be drilled 2110 feet from the North line and 1120 feet from the East line of Section 10, Township 22 South, Range 9 West, the SE/4 NE/4 of said Section 10 to be dedicated to the well.
- CASE 7397: Application of Belco Petroleum Corporation for downhole commingling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Atoka and Strawn production in the wellbore of its Kimbley Well No. 1, located in Unit G of Section 21, Township 23 South, Range 28 East.
- CASE 7398: Application of El Paso Natural Gas Company for an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of a Wolfcamp-Lenn well, to be drilled 660 feet from the South and West lines of Section 23, Township 26 South, Range 30 East, Ross Draw Area, the S/2 of said Section 23 to be dedicated to the well.
- CASE 7399: Application of Texaco, Inc. for a Unit Agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the North Vacuum Abo West Unit Area, comprising 2000 acres, more or less, of state lands in Township 17 South, Range 34 East.
- CASE 7400: Application of Texaco, Inc. for a pressure maintenance project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a pressure maintenance project in its North Vacuum Abo West Unit Area by the injection of water into the Abo formation through 13 wells located in Sections 15, 21, 22, 27, 28 and 34, Township 17 South, Range 34 East, North Vacuum-Abo Pool.
- CASE 7401: Application of Morris R. Antweil for an unorthodox oil well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of a well to be drilled 2410 feet from the North line and 330 feet from the West line of Section 21, Township 18 South, Range 38 East, Hobbs Grayburg-San Andres Pool, the SW/4 NW/4 of said Section 21 to be dedicated to the well.
- CASE 7396: (Continued from October 21, 1981, Examiner Hearing)
- Application of Morris R. Antweil for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests from the surface to the base of the Abo formation underlying the NE/4 SW/4 of Section 5, Township 20 South, Range 38 East, to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as operator of the well, and a charge for risk involved in drilling said well.
- CASE 7402: Application of MGF Oil Corporation for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Strawn formation underlying the NW/4 NW/4 of Section 5, Township 20 South, Range 39 East, to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as operator of the well, and a charge for risk involved in drilling said well.

CASE 7403: Application of Arco Oil and Gas Company for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of the Jalmat and Langle Mattix production in the wellbore of its E. L. Steeler WN Well No. 5, located in Unit J of Section 19, Township 23 South, Range 37 East.

CASE 7359: (Continued from October 7, 1981, Examiner Hearing)

Application of Energy Reserves Group for creation of a new gas pool and an unorthodox location, Roosevelt County, New Mexico.

Applicant, in the above-styled cause, seeks creation of a new Cisco gas pool for its Miller Com Well No. 1, located in Unit M of Section 12, Township 6 South, Range 33 East.

Applicant further seeks approval for an unorthodox location for its Miller "A" Well No. 1-Y, to be drilled 1800 feet from the South line and 1700 feet from the East line of Section 11 of the same township. The S/2 of said Section 11 to be dedicated to the well.

CASE 7353: (Continued from October 21, 1981, Examiner Hearing)

Application of Amoco Production Company for compulsory pooling, Eddy County, New Mexico.

Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Upper Pennsylvanian formation underlying the NW/4 of Section 19, Township 19 South, Range 25 East, to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as operator of the well, and a charge for risk involved in drilling said well.

CASE 7404: Application of TXO Production Corporation for an unorthodox well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of an infill well to be drilled 2000 feet from the North line and 660 feet from the East line of Section 18, Township 21 South, Range 26 East, Catclaw Draw-Morrow gas pool.

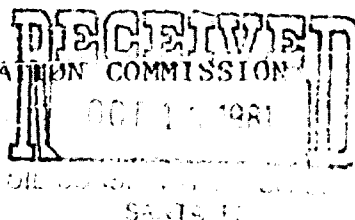
CASE 7405: Application of Carl Schellinger for dual completion and an unorthodox location, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion of his Campbell Station Unit Well No. 1, to produce gas from the Abo and Pennsylvanian formations. Applicant further seeks approval of the unorthodox Pennsylvanian location of said well 660 feet from the South and West lines of Section 34, Township 8 South, Range 27 East, the S/2 of said Section 34 to be dedicated to the Pennsylvanian and the SW/4 to the Abo.

CASE 7406: Application of Depco, Inc. for compulsory pooling, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests down through the Abo formation underlying the SE/4 of Section 23, Township 5 South, Range 24 East, to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as operator of the well, and a charge for risk involved in drilling said well.

CASE 7407: Application of Mesa Petroleum Company for compulsory pooling, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Abo formation underlying the NE/4 of Section 23, Township 5 South, Range 24 East, to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as operator of the well, and a charge for risk involved in drilling said well.

CASE 7408: Application of Doyle Hartman for directional drilling, a non-standard proration unit, an unorthodox well location and simultaneous dedication, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to directionally drill his Justis Well No. 10, the surface location of which is 1940 feet from the North line and 120 feet from the West line of Section 20, Township 25 South, Range 37 East, in such a manner as to bottom said well in the Jalmat Gas Pool at an unorthodox location 1980 feet from the North line and 330 feet from the East line of Section 19, Township 25 South, Range 37 East. Applicant further proposes to simultaneously dedicate said well and the Bettis, Boyle and Stovall Justis Well No. 1 to an 80-acre non-standard proration unit comprising the E/2 NE/4 of said Section 19.

BEFORE THE NEW MEXICO OIL CONSERVATION COMMISSION



IN THE MATTER OF THE APPLICATION OF
ARCO OIL AND GAS COMPANY FOR DOWNHOLE
COMMINGLING OF THE JALMAT YATES 7
RIVERS AND LANGLIE MATTIX 7 RIVERS
POOLS LOCATED IN UNIT J, SECTION 19,
TOWNSHIP 23 SOUTH, RANGE 37 EAST,
LEA COUNTY, NEW MEXICO.

Case No. 2463

APPLICATION

COMES NOW the applicant ARCO Oil and Gas Company, through its attorneys, Montgomery & Andrews, P.A., and pursuant to the provisions of Rule 303C, applies to the New Mexico Oil Conservation Division for administrative approval to commingle downhole production from the Jalmat Yates 7 Rivers and Langlie Mattix 7 Rivers pools located in Section 19, Township 23 South, Range 37 East, Lea County, New Mexico, and in support of its application states:

1. Applicant is the operator of the E. L. Steeler WN #5(J) well located in Unit J, Section 19, Township 23 South, Range 37 East, Lea County, New Mexico.

2. The above well was originally completed in the Langlie Mattix 7 Rivers Queen and was dually completed in the Jalmat Yates 7 Rivers Queen formation. The Division Order number authorizing the dual completion will be supplied before the hearing requested herein.

3. A current 24-hour productivity test on Division Form C-116 showing the amount of oil, gas and water produced from each

zone is attached hereto as Exhibit "A" and incorporated by reference.

4. This is a newly completed well with no production history.

(A) The well was completed in the Langlie Mattix 7 Rivers Queen zone 3-3-81 through perforations 3418'-3695'. These perforations were acidized with 3000 gallons 15% acid & fraced with 40,000 gelled water plus 20,000 gallons CO₂ and 102,000# sand. On pumping test, the well produced 5 BO, 5 BW, and 40 MCF gas in 24 hours.

(B) The well was dually completed in the Jalmat Yates 7 Rivers formation through perforations 2913'-3012'. The well was completed with natural flow of 296 MCF per day from the Jalmat perforations, flowing through the casing annulus with 40# casing pressure through a 20/64" choke.

5. Measured bottom hole pressure for the Langlie Mattix zone is 195 psig. Shut in casing pressure for the Jalmat is 200 psig. This corrects to a bottom hole pressure of 215 psig at 3500', the measurement depth for the Langlie Mattix.

6. The Jalmat formation in this well produces no oil or water, so it is not expected to be damaged by the small amount of water produced from the Langlie Mattix zone (5 BWPD). Since there is no commingling of oil, the 5 BOPD produced from the Langlie Mattix should not damage the Jalmat. In the event scale becomes a problem, the two zones can be separated for production if necessary.

7. There is no change or commingling of oil, so there will be no change in value of the product. The gas will be sold to the same purchaser (El Paso Natural Gas Co.) who would have

bought the separate streams, and the price will not change on commingling.

8. Ownership of the two zones to be commingled is common, including working interest, royalty and overriding royalty.

9. A list of the offset operators is attached hereto as Exhibit "B" and incorporated by reference. The offset operators will be notified of the proposed commingling and a statement to that effect will be submitted by the Applicant prior to the hearing requested herein.

10. The granting of this Application is in the interest of the prevention of waste and the protection of correlative rights.

WHEREFORE, Applicant prays for administrative approval of this Application pursuant to Rule 303C.3, or in the alternative, if administrative approval cannot be granted, that this Application be set for hearing at the next regularly scheduled Examiner Hearing of the Oil Conservation Division.

Dated October 15, 1981.

Respectfully submitted,

MONTGOMERY & ANDREWS, P.A.

By Gary R. Kilpatrick
Gary R. Kilpatrick
Post Office Box 2307
Santa Fe, New Mexico 87504-2307
(505) 982-3873

Attorneys for Applicant

**NEW MEXICO OIL CONSERVATION COMMISSION
GAS-OIL RATIO TESTS**

C-116
Revised 1-1-65

Operator AFCO Oil & Gas Company		Pool Langley Mattix 7 Rivers Queen		County Lea											
Address P. O. Box 1610, Midland, Texas 79701		Type of Test - (X) <input checked="" type="checkbox"/> TEST - (X)		Schedulced <input type="checkbox"/> Special <input checked="" type="checkbox"/>											
LEASE NAME	WELL NO.	LOCATION				DATE OF TEST	CHOKE SIZE	TBG. PRESS.	DAILY ALLOWABLE	LENGTH OF TEST HOURS	PROD. DURING TEST			GAS - OIL RATIO CU.FT./BBL	
		U	S	T	R						WATER BBL'S	GRAV. OIL BBL'S	GAS M.C.F.		
E. L. Steeler WM	5 - J	19	23S	37E		9-25-81	P 0	25#	20	24	5	36°	5	40	8000

EXHIBIT "A" - page 1

No well will be assigned an allowable greater than the amount of oil produced on the official test.
 During gas-oil ratio test, each well shall be produced at a rate not exceeding the top unit allowable for the pool in which well is located by more than 25 percent. Operator is encouraged to take advantage of this 25 percent tolerance in order that well can be assigned increased allowable when authorized by the Commission.
 Gas volumes must be reported in MCF measured at a pressure base of 15.025 psia and a temperature of 60° F. Specific gravity base will be 0.60.
 Report casing pressure in lieu of tubing pressure for any well producing through casing.
 Well original and one copy of this report to the district office of the New Mexico Oil Conservation Commission in accordance with Rule 361 and appropriate pool rules.

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

B. L. Stokely
 B. L. Stokely (Signature)
 Senior Engineer

September 25, 1981

**NEW MEXICO OIL CONSERVATION COMMISSION
GAS-OIL RATIO TESTS**

C-116
Revised 1-1-65

Company ARCO Oil & Gas Company						Pool Langley Mattix 7 Rivers Queen						County Lea					
Address P. O. Box 1610, Midland, Texas 79701						TYPE OF TEST - (X) <input checked="" type="checkbox"/>		Scheduled <input type="checkbox"/>		Completion <input type="checkbox"/>		Special <input checked="" type="checkbox"/>					
LEASE NAME	WELL NO.	LOCATION				DATE OF TEST	STATUS	CHOKE SIZE	TUB. PRESS.	DAILY ALLOWABLE	LENGTH OF TEST HOURS	PROD. DURING TEST				GAS - OIL RATIO CU.FT./BBL.	
		U	S	T	R							WATER BBL.	GRAV. OIL	OIL BBL.	GAS M.C.F.		
E. L. Steeler WM	5 -	J	19	23S	37E	9-25-81	P	0	25#	20	24	5	36°	5	40	8000	

EXHIBIT "A" - page 1

No well will be assigned an allowable greater than the amount of oil produced on the official test.

During gas-oil ratio test, each well shall be produced at a rate not exceeding the top unit allowable for the pool in which well is located by more than 25 percent. Operator is encouraged to take advantage of this 25 percent tolerance in order that well can be assigned increased allowables when authorized by the Commission.

Gas volumes must be reported in MCF measured at a pressure base of 15.025 psia and a temperature of 60° F. Specific gravity base will be 0.60.

Report casing pressure in lieu of tubing pressure for any well producing through casing.

Mail original and one copy of this report to the district office of the New Mexico Oil Conservation Commission in accordance with Rule 303 and appropriate pool rules.

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

B. L. Stokely
B. L. Stokely (Signature)
Senior Engineer
(Title)

September 25, 1981

**NEW MEXICO OIL CONSERVATION COMMISSION
GAS-OIL RATIO TESTS**

C-116
Revised 1-1-65

ARCO Oil & Gas Co.				Pool Jalmat Yates 7 Rivers				County Lea								
Address P. O. Box 1610, Midland, Texas 79701						TYPE OF TEST - (X)		Scheduled <input type="checkbox"/>		Completion <input type="checkbox"/>		Special <input checked="" type="checkbox"/>				
LEASE NAME	WELL NO.	LOCATION				DATE OF TEST	STATUS	CHOKE SIZE	TBG. PRESS.	DAILY ALLOWABLE	LENGTH OF TEST HOURS	PROD. DURING TEST				GAS - OIL RATIO CU. FT./BBL
		U	S	T	R							WATER BBLs.	GRAV. OIL	OIL BBLs.	GAS M.C.F.	
E. L. Steeler WN	5	J	19	23S	37E	9-20-81	F	20/64	40	-	24	0	-	0	296	8

EXHIBIT "A" - page 2

No well will be assigned an allowable greater than the amount of oil produced on the official test.

During gas-oil ratio test, each well shall be produced at a rate not exceeding the top unit allowable for the pool in which well is located by more than 25 percent. Operator is encouraged to take advantage of this 25 percent tolerance in order that well can be assigned increased allowables when authorized by the Commission.

Gas volumes must be reported in MCF measured at a pressure base of 15.025 psia and a temperature of 60° F. Specific gravity base will be 0.60.

Report casing pressure in lieu of tubing pressure for any well producing through casing.

Mail original and one copy of this report to the district office of the New Mexico Oil Conservation Commission in accordance with Rule 361 and appropriate pool rules.

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

B. L. Stokely
B. L. Stokely (Signature)
Senior Engineer

(Title)
September 25, 1981

E. L. Steeler Lease
S/2 Section 19, T-23-S, R-37-E,
Lea County, New Mexico

Offset Operators:

Sun Texas Company
1509 West Wall
Midland, Texas 79701

Gulf Oil Company
P. O. Box 1150
Midland, Texas 79702

Coquina Oil Company
P. O. Drawer 2960
Midland, Texas 79702

Samedan Oil Company
900 Wall Towers East
Midland, Texas 79701

Getty Oil Company
P. O. Box 1231
Midland, Texas 79702

Reserve Oil and Gas Company
312 HBF Building
Midland, Texas 79701

James L. Evans
P. O. Box 1125
Eunice, New Mexico 88231

dr/

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
DIVISION FOR THE PURPOSE OF
CONSIDERING:

CASE NO. 7403

Order No. R-1512

APPLICATION OF ARCO OIL AND GAS COMPANY
FOR DOWNHOLE COMMINGLING, LEA
COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on November 4,
19 81, at Santa Fe, New Mexico, before Examiner Daniel S.
Nutter.

NOW, on this _____ day of November, 19 81, the
Division Director, having considered the testimony, the record,
and the recommendations of the Examiner, and being fully
advised in the premises,

FINDS:

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

(2) That the applicant, ARCO Oil and Gas Company, is
the owner and operator of the F. L. Steele WN Well No. 5,
located in Unit 3 of Section 19, Township 23 South,
Range 37 East, NMPM, Lea County, New Mexico.

(3) That the applicant seeks authority to commingle
Jalmat Lav Pool and Langlie Mattix Oil Pool production
within the wellbore of the above-described well.

(4) That from the Jalmat ^{as} zone, the subject well is capable of low marginal production only.

(5) That from the Langlie Mattix ^{oil} zone, the subject well is capable of low marginal production only.

(6) That the proposed commingling may result in the recovery of additional hydrocarbons from each of the subject pools, thereby preventing waste, and will not violate correlative rights.

(7) That the reservoir characteristics of each of the subject zones are such that underground waste would not be caused by the proposed commingling provided that the well is not shut-in for an extended period.

(8) That to afford the Division the opportunity to assess the potential for waste and to expeditiously order appropriate remedial action, the operator should notify the Hobbs district office of the Division any time the subject well is shut-in for 7 consecutive days.

(9) That in order to allocate the commingled production to each of the commingled zones in the subject well, all of ~~percent of~~ the commingled gas production should be allocated to the Jalmat zone, and all of the ~~percent of the~~ commingled oil production to the Langlie Mattix zone.

(ALTERNATE)

(9) That in order to allocate the commingled production to each of the commingled zones in the wells, applicant should consult with the supervisor of the Hobbs district office of the Division and determine an allocation formula for each of the production zones.

IT IS THEREFORE ORDERED:

(1) That the applicant, ARCO Oil and Gas Company, is hereby authorized to commingle Jalmat and Langlie Mattix production within the wellbore of the E. L. Steeler WN Well No. 5, located in Unit 3 of Section 19, Township 23 South, Range 37 East, NMPM, Lea County, New Mexico.

(2) That the applicant shall consult with the Supervisor of the Hobbs district office of the Division and determine an allocation formula for the allocation of production to each zone in each of the subject wells.

(ALTERNATE)

(2) That all percent of the commingled gas production shall be allocated to the Jalmat Gas Pool ~~zone~~ and all percent of the commingled oil production shall be allocated to the Langlie Mattix Pool zone.

(3) That the operator of the subject well shall immediately notify the Division's Hobbs district office any time the well has been shut-in for 7 consecutive days and shall concurrently present, to the Division, a plan for remedial action.

(4) That jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

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