CASE 6935: DUGAN PRODUCTION CORPORATION FOR DOWNHOLE COMMINGLING, SAN JUAN COUNTY, NEW MEXICO

CASE NO.

6935

APPlication, Transcripts, Small Exhibits,

ETC.

Page	1.

STATE OF NEW MEXICO ENERGY AND MINERALS DEPARTMENT OIL CONSERVATION DIVISION STATE LAND OFFICE BLDG. SANTA FE, NEW MEXICO 25 June 1980

EXAMINER HEARING

IN THE MATTER OF:

Application of Dugan Production Corpor-) ation for downhole commingling, San Juan) County, New Mexico.

CASE 6935

BEFORE: Richard L. Stamets

TRANSCRIPT OF HEARING

APPEARANCES

For the Oil Conservation Division:

Ernest L. Padilla, Esq. Legal Counsel to the Division State Land Office Bldg. Santa Fe, New Mexico 87501

For the Applicant:

Tommy Roberts, Esq. Farmington, New Mexico

SAI.LY W. BOYD, C.S.R. Rt. 1 Box 199-E Santa Fe, New Mexico 87501 Phone (505) 455-7409

11

12

13

15

16

17

18

19

20

21

22

23

24

INDEX

THOMAS A. DUGAN

Direct Examination by Mr. Roberts 3

Cross Examination by Mr. Stamets 12

EXHIBITS

Applicant Exhibit One, Plat

Applicant Exhibit Two, Map

Applicant Exhibit Three, Report

Applicant Exhibit Four, Test

Applicant Exhibit Five, Report

Applicant Exhibit Six, Cross Section

Applicant Exhibit Seven, Log

Applicant Exhibit Eight, Log

Rt. 1 Box 193-B Santa Fe, New Mexico 87501 Phone (505) 455-7409 10

12

13

14

15

21

22

23

Rt. 1B Santa Fe, Nev Phone (50

.

3

5

this case.

8

10

of: New Mexico 8 of 126 of 126

13 14

15

16

17

19

21

25

MR. STAMETS: Call next Case 6935.

MR. PADILLA: Application of Dugan Production Corporation for downhole commingling, San Juan County, New Mexico.

MR. STAMETS: Call for appearances in

MR. ROBERTS: Tommy Roberts, General Counsel, Dugan Production Corporation.

I have one witness.

(Witness sworn.)

THOMAS A. DUGAN

being called as a witness and having been duly sworn upon his oath, testified as follows, to-wit:

DIRECT EXAMINATION

BY MR. ROBERTS:

Q Would you state your name, your address, and your occupation, please?

A. Thomas A. Dugan. I live at 907 Hammett Circle, Farmington, New Mexico. I work for Dugan Production Corp.

Q Have you previously testified before the New Mexico Oil Conservation Commission?

A Yes, I have.

MR. ROBERTS: Are the witness' qualifications a matter of record and acceptable?

MR. STAMETS: Yes, they are.

Q Mr. Dugan, are you familiar with the application in this matter?

A Yes, I am. It's the application for downhole commingling in our June Joy No. 2 Well, San Juan County, New Mexico.

Q Would you please identify the location of that well?

A. Okay. It's in Section 25 of Township 24
North, Range 10 West, San Juan County, New Mexico.

Q Would you identify the pools to be commingled?

A Well, it's the Gallup horizon is undesignated and the Dakota would be in the Basin Dakota Pool if it were a gas well; however, it appears that this is a zone that is producing from within the Dakota oil horizon, I guess it would be undesignated, also.

Q. Is Dugan Production the operator of this well?

A. Yes, Dugan is the operator.

Mould you please refer to what's been marked as Exhibit Number One and identify that exhibit and

.Y W. BOYD, C.S.R. Rt. 1 Box 193-B ta Fe, New Mexico 87501 Phone (505) 455-1409.

12

13

14

15

17

21

22

23

explain its significance?

A. Okay, that is the map showing the lease-hold in the area, who owns the leases, and Dugan Production Corporation owns the leases in Sections 24, 19, 30, and 25.

The blue is unleased Federal in the southeast quarter of 23 and then the orange is owned by Joan Chorney (sic) and R. K. Cramer (sic), 50 percent each.

Would you please refer to what's been marked as Exhibit Number Two and identify that exhibit and explain its significance?

A All right. This is a map showing wells in the area. The blue dot is the June Joy No. 2 Well. The orange gas well symbol in Section 30 is Dugan Production Corporation's April Surprise No. 2 Well. It is producing from the Dakota formation and it is a gas well, but we'll show it later on, that it's not a comparable zone to the zone that is producing in the June Joy No. 2.

We also have showed on the map the outlines of the White Wash Mancos Dakota Pool, which is very similar to the June Joy No. 2, and we've also noted the other gas -- the Dakota gas wells with red that are bonafide gas wells producing from the Basin Dakota Pool.

You can note that the June Joy and the April Surprise is quite a ways away from the nearest producing well in the Basin Dakota Pool, and it's also two miles south

ALLY W. BOYD, C.S.
Rt. 1 Box 193-13
Santa Fe, New Mexics 87501
Phone (505) 455-7409

of any producing wells from the Bisti Gallup Pool.

Would you please refer to what's been marked as Exhibit Number Three and identify that exhibit and briefly summarize its contents?

A All right. This is our morning report that was compiled during the drilling of the June Joy 2, and it should have all the information available regarding this well.

What should probably be pointed out is the fact that we perforated a zone that is comparable to the producing horizon in the April Surprise No. 2 and then later plugged it. We can go into that a little further when we get to the cross section. And we can also note, if you would like, the method of stimulation of the producing horizons.

Mr. Dugan, how is the pool classified from these zones?

A. The -- well, of course, the Basin Dakota is gas, but it would appear that production from the June Joy 2 in the Dakota is oil productive, and the Gallup horizon is an oil pool.

Q Will these zones require artificial
lift or are they capable of flowing?

A. They are not capable of flowing and we are currently pumping the well.

Q Would you please state the depth of the

lowermost perforations?

Yeah. It's -- the lowest producing perforation in the June Joy No. 2 is 5890.

Would you please refer now to what's been marked as Exhibit Number Four and identify it and explain its significance?

This is a gas/oil ratio test that was à. taken on the June Joy 2 on 6-12-80, and it would show that is a well producing that day 18.47 barrels of cil, 15 Mcf of gas, with a gas/oil ratio of 811. Gravity of oil is 44 degrees.

Refer to what's been marked as Exhibit Number Five and identify it and explain its significance?

That's a copy of our switcher/pumper report on the June Joy No. 2 Well, and the well was first production -- first production from the well was the latter part of May. We got the well pumping the first day of June and this is what the well has made since that time on a daily basis.

On the basis of what's contained in Exhibits Four and Five, do you have an opinion as to whether the total daily production from both zones before commingling would have exceeded the combined oil limitation as set forth in the rules and regulations of the -- of this Commission?

Unfortunately not.

Does either zone produce more water than

10

11

12

13

14

15

19 20

21

23 24

11

12

13

14

15

16

17

19

20

21

22

23

the combined oil limit?

No. The well was fracted using water and the water production from the well is declining and I would say that within a year it will be making less than 1 barrel of water a day. I hope it's making more oil than that.

MR. STAMETS: Tom, do Exhibits Four and Five represent the Dakota only or both zones?

> No, the commingled production. MR. STAMETS: Okay.

Are you able to estimate the future production capabilities of each zone?

Well, I would estimate that 80 percent of the oil is coming from the Gallup horizon and 20 percent from the Dakota horizon, and as to the production, I hope it levels out at about 10 barrels a day, at least.

Please refer to Exhibit Number Six and identify that and explain its significance.

Well, this is a Dakota-Gallup cross section, showing the logs from the April Surprise No. 2 and the June Joy No. 2.

The April Surprise No. 2 was drilled first It had a good looking zone in the Dakota at 6122 to 6132. We perforated this zone and it made 850 Mcf of gas natural. We did not stimulate the zone, so in the June Joy - I mean in the April Surprise No. 2, it is the only zone that's pro-

ALLY W. BOYD, C.S.
Rt. 1 Box 193-B
Suita Fe, New Mexico 87501
Phone (505) 455-7409

ducing and it looks like a commercial well and a new discovery 10 or 15 miles from any other Dakota production.

We then, because of lease expiration, drilled the June Joy 2. We — on logging the June Joy 2, we found that the comparable zone in — to the producing horizon in the April Surprise 2 was a lot thinner and the well was structurally low and it didn't look very favorable, but we perforated it and tested it by itself and it made water. We then set a bridge plug, squeeze retainer, at 6003 and squeezed off that zone.

So being disappointed in the outcome of the well, we looked for a salvage type operation and decided to perforate a zone in the Upper Dakota from 5082 to -- excuse me, 5882 to 5890, and we also perforated zones in the Mancos Shale, which would be Gallup equivalents, that are shown on the cross section.

We have no good sands in the -- what would be the Gallup equivalent. These are silt zones and -- but if there is some natural fracturing associated with the zones we can -- they'll produce oil as a general rule, and this well is producing oil.

Q Mr. Dugan, please refer to Exhibits
Number Seven and Eight.

A. These are just a copy of the logs from each well that we brought along and are submitting for the

LIY W. BOYD, C.S.R. Rt. 1 Box 193-B anta Fe, New Mexico 67201 Phone (503) 455-7409

11

12

13

15

16

17

19

21

Commission's information.

This would be a full copy of the log where the cross section only shows a portion of the wellbore.

Q. Mr. Dugan, would you -- are you able to describe the fluid characteristics of each zone?

A. Well, we haven't tested each zone separately but referring back to our map, we did a similar type operation on our Big 8 Well, which is in Section 8, Township 24 North, Range 9 West. The oil from the Dakota horizon in this well was 48 gravity and the oil from the Gallup horizon was 40, 41 gravity. That well was tested and each zone was tested separately, so I would assume that the -- any oil produced would be from the June Joy 2, would be similar to that well.

In your professional opinion would the combination of fluids result in the formation of precipitants which would be damaging to either of the reservoirs?

A. No.

Q In your opinion will the total value of the crude produced be reduced by commingling?

A. No, it should be the same.

What are the estimated bottom hole pressures from each zone?

A Well, again referring back to the Big 8

No. 1 Well, we -- the bottom hole pressure of the Dakota zone

SALLY W. BOYD, C.S.

Rt. 1 Box 193-B

Sauta Fe, New Mexico 87501

Phone (305) 455-7409

2

7

10

11

12

13

14

15

16

17

18

20

21

22

23

24

25

there was 2200 psi, approximately; and the bottom hole pressure in the Gallup horizon was approximately 1500 psi.

Q Is the ownership of the zones common?

A. Yes. Dugan Production owns all rights

to the Basin Dakota on the June Joy lease.

Q In your professional opinion will the commingling in any way jeopardize the efficiency of present or future secondary recovery operations, or do you know?

A. I'm afraid there's no secondary recovery prospects in the June Joy area, in either horizon.

A Have the offset operators you identified at the start of the hearing been notified of this filing?

A. Yes and we have a waiver for the commingling, downhole commingling of both of the operators.

Q Did you receive those waivers?

A That would be from --

MR. STAMETS: Have one from Joan Chorney

and R. K. Cramer.

MR. ROBERTS: Okay.

A. Yeah, that's the only other offset operator.

Q Mr. Dugan, were Exhibits One through Eight either prepared by you or at your direction and under your supervision?

A. Yes, they were.

11

12

13

14

15

18

19

20

21

22

23

24

MR. BOBERTS: We move that Exhibits One through Eight be admitted.

MR. STAMETS: These exhibits will be admitted.

In your professional opinion, will the commingling of the production from the Basin Dakota gas Pool and the undesignated Gallup oil pool in the wellbore of the June Joy No. 2 Well result in the recovery of additional hydrocarbons, prevention of waste, and the protection of correlative rights?

Yes. It's quite obvious that this is a salvage type operation and even after one month that there would undoubtedly be oil that would not be recovered if it wasn't handled in this manner.

> We have no other testimony. MR. ROBERTS:

CROSS EXAMINATION

BY MR. STAMETS:

Mr. Dugan, I presume you've got, or will Q. have, 40 acres dedicated to this well in both the Gallup and Dakota zones, is that right?

ïes.

Okay. And then you indicated there was another well which was commingled in these two zones. I believe you called it the Big 8.

SALLY W. BOYD, C.S.R Rt. 1 Box 193-B Santa Pc. New Medico 87501 Phone (505) 455-7409

11

12

13

14

15

.6

17

18

19

20

21

22

23

24

25

A. Yes. We -- it's not commingled; however, we did complete the Big 3 No. 1 in the Dakota formation. We did get approval to commingle it, the Dakota and the Gallup. We produced the Dakota by itself for a period of time. The Dakota was making about 12 barrels of oil a day and 80 barrels of water a day.

So we didn't have a mthod of disposing of that water, so at this point we have temporarily abandoned the Dakota formation. We have a Model A bridge plug set in it and we have completed the Gallup formation. We're just producing the Gallup by itself at this time until we can figure out what to do with that water or decide we want to go back to the Dakota formation.

A. Okay, it's shown on that map and it's in the southwest quarter of Section 8, Township 24 North, Range 9 West. It's not real plain but it's the double symboled well there right by the pipeline towards the west side of the

What's the location of that well?

section.

Okay.

MR. STAMETS: Are there any other questions of the witness? He may be excused.

Anything further in this case?

The case will be taken under advisement.

-		
Page	3.4	

CERTIFICATE

I, SALLY W. BOYD, C.S.R., DO HEREBY CERTIFY that the foregoing Transcript of Hearing before the Oil Conservation Division was reported by me; that the said transcript is a full, true, and correct record of the hearing, prepared by me to the best of my ability.

16 17

10

.11

12

13

14

19

22

23

21

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. heard by me on____

Examiner

Oil Conservation Division

LARRY KEHOE SECRETARY

STATE OF NEW MEXICO ENERGY AND MINERALS DEPARTMENT **OIL CONSERVATION DIVISION**

July 23, 1980

Re:

POST OFFICE BOX 2098 STATE LAND OFFICE BUILDING SANTA FE, NEW MEXICO 87501 1505) 827-2434

Mr. Tommy Roberts, Attorney Dugan Production Corporation P. O. Box 208 Farmington, New Mexico 87401

6935 CASE NO. ORDER NO R-6396

Applicant:

Dugan Production Corporation

Dear Sir:

Enclosed herewith are two copies of the above-referenced Division order recently entered in the subject case.

Pours very truly, JOE D. RAMEY Director

JDR/fd

Copy of order also sent to:

Hobbs OCD Artesia OCD Aztec OCD

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. 6935 Order No. R-6396

APPLICATION OF DUGAN PRODUCTION CORPORATION FOR DOWNHOLE COMMINGLING, SAN JUAN COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on June 25, 1980, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this 22nd day of July, 1980, 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, Dugan Production Corporation, is the owner and operator of the June Joy Well No. 2, located in Unit B of Section 25, Township 24 North, Range 10 West, NMPM, San Juan County, New Mexico.
- (3) That the applicant seeks authority to commingle undesignated Dakota and undesignated Gallup oil production within the wellbore of the above-described well.
- (4) That from the Dakota zone, the subject well is capable of low rates of production only.
- (5) That from the Gallup 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. 6935 Order No. R-6396

- (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 Aztec 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, 80 percent of the commingled production should be allocated to the undesignated Dakota zone, and 20 percent of the commingled production to the undesignated Gallup zone.

IT IS THEREFORE ORDERED:

- (1) That the applicant, Dugan Production Corporation, is hereby authorized to commingle undesignated Dakota oil and undesignated Gallup oil production within the wellbore of its June Joy Well No. 2, located in Unit B of Section 25, Township 24 North, Range 10 West, NMPM, San Juan County, New Mexico.
- (2) That 80 percent of the commingled production shall be allocated to the Dakota zone and 20 percent of the commingled production shall be allocated to the Gallup zone.
- (3) That the operator of the subject well shall immediately notify the Division's Aztec 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 herein-

STATE OF NEW MEXICO QIL CONSERVATION DIVISION

JOE D. RAMEY

Director

B 1

STATE OF NEW MEXICO ENERGY AND MINEPALS DEPARTMENT OIL CONSERVATION DIVISION STATE LAND OFFICE BLDG. SANTA FE, NEW MEXICO 25 June 1980

EXAMINER HEARING

IN THE MATTER OF:

Application of Dugan Production Corpor-) ation for downhole commingling, San Juan) County, New Mexico.

CASE 6935

BEFORE: Richard L. Stamets

TRANSCRIPT OF HEARING

APPEARANCES

For the Oil Conservation Division:

Ernest L. Padilla, Esq. Legal Counsel to the Division State Land Office Bldg. Santa Fe, New Mexico 87501

For the Applicant:

Tommy Roberts, Esq. Farmington, New Mexico

16 17

10

11

12

13

14

15

19

22

INDEX

2

THOMAS A. DUGAN

Direct Examination by Mr. Roberts 3

Cross Examination by Mr. Stamets 12

LILY W. BOYD, C.S.
Rt. J. Box 193-B
anta Fe, New Medico 87501
Phone (305) 435-7409

11

13

14

17

19

2û

21

EXHIBITS

Applicant Exhibit One, Plat 5

Applicant Exhibit Two, Map 5

Applicant Exhibit Three, Report 6

Applicant Exhibit Four, Test 7

Applicant Exhibit Five, Report 7

Applicant Exhibit Six, Cross Section 8

Applicant Exhibit Seven, Log 9

Applicant Exhibit Eight, Log 9

25

13

14

21

22

23

MR. STAMETS: Call next Case 6935.

MR. PADILLA: Application of Dugan Pro-

duction Corporation for downhole commingling, San Juan County, New Mexico.

MR. STAMETS: Call for appearances in

this case.

MR. ROBERTS: Tommy Roberts, General Counsel, Dugan Production Corporation.

I have one witness.

(Witness sworn.)

THOMAS A. DUGAN

being called as a witness and having been duly sworn upon his oath, testified as follows, to-wit:

DIRECT EXAMINATION

BY MR. ROBERTS:

Would you state your name, your address, and your occupation, please?

Thomas A. Dugan, I live at 907 Hammett Circle, Farmington, New Mexico. I work for Dugan Production Corp.

Have you previously testified before the New Mexico Oil Conservation Commission?

SALLY W. BOYD, C.S.R.
Rt. 1 Box 193-B
Satta Fe, New Mexico 67501
Phone (505) 455-7409

6

7

10

11

12

13

14

16

17

21

A. Yes, I have.

MR. ROBERTS: Are the witness' qualifications a matter of record and acceptable?

MR. STAMETS: Yes, they are.

0 Mr. Dugan, are you familiar with the application in this matter?

A Yes, I am. It's the application for downhole commingling in our June Joy No. 2 Well, San Juan County, New Mexico.

Would you please identify the location of that well?

A. Okay. It's in Section 25 of Township 24
North, Range 10 West, San Juan County, New Mexico.

Q Would you identify the pools to be commingled?

A. Well, it's the Gallup horizon is undesignated and the Dakota would be in the Basin Dakota Pool if it were a gas well; however, it appears that this is a zone that is producing from within the Dakota oil horizon, I guess it would be undesignated, also.

Q. Is Dugan Production the operator of this well?

A Yes, Dugan is the operator.

Q Would you please refer to what's been marked as Exhibit Number One and identify that exhibit and

•

3

E

6

7

8

9

ŤŨ

11

1 Box 193-B New Mexico 87501 (303) 453-7409

Sana Fe, New M. Phone (505) 4

15 16

14

17 18

19 20

21

22

23

25

24

explain its significance?

A. Okay, that is the map showing the lease-hold in the area, who owns the leases, and Dugan Production Corporation owns the leases in Sections 24, 19, 30, and 25.

The blue is unleased Federal in the southeast quarter of 23 and then the orange is owned by Joan Chorney (sic) and R. K. Cramer (sic), 50 percent each.

Q. Would you please refer to what's been marked as Exhibit Number Two and identify that exhibit and explain its significance?

A All right. This is a map showing wells in the area. The blue dot is the June Joy No. 2 Well. The orange gas well symbol in Section 30 is Dugan Production Corporation's April Surprise No. 2 Well. It is producing from the Dakota formation and it is a gas well, but we'll show it later on, that it's not a comparable zone to the zone that is producing in the June Joy No. 2.

We also have showed on the map the outlines of the White Wash Mancos Dakota Pool, which is very similar to the June Joy No. 2, and we've also noted the other gas -- the Dakota gas wells with red that are bonafide gas wells producing from the Basin Dakota Pool.

You can note that the June Joy and the
April Surprise is quite a ways away from the nearest producing
well in the Basin Dakota Pool, and it's also two miles south

11

12

13

14

15

16

17

18

19

21

22

23

of any producing wells from the Bisti Gallup Pool.

Q Would you please refer to what's been marked as Exhibit Number Three and identify that exhibit and briefly summarize its contents?

A. All right. This is our morning report that was compiled during the drilling of the June Joy 2, and it should have all the information available regarding this well.

What should probably be pointed out is the fact that we perforated a zone that is comparable to the producing horizon in the April Surprise No. 2 and then later plugged it. We can go into that a little further when we get to the cross section. And we can also note, if you would like, the method of stimulation of the producing horizons.

Q. Mr. Dugan, how is the pool classified from these zones?

The -- well, of course, the Basin Dakota is gas, but it would appear that production from the June Joy 2 in the Dakota is oil productive, and the Gallup horizon is an oil pool.

Q. Will these zones require artificial lift or are they capable of flowing?

A. They are not capable of flowing and we are currently pumping the well.

Q. Would you please state the depth of the

4

6

8

10

11

12

55-7409

SALLY W. BOYD, C.S.

13

14

15

16

17

19

18

22

23

21

25

lowermost perforations?

A Yeah. It's -- the lowest producing perforation in the June Joy No. 2 is 5890.

Q Would you please refer now to what's been marked as Exhibit Number Four and identify it and explain its significance?

A. This is a gas/oil ratio test that was taken on the June Joy 2 on 6-12-80, and it would show that is a well producing that day 18.47 barrels of oil, 15 Mcf of gas, with a gas/oil ratio of 811. Gravity of oil is 44 degrees.

Q Refer to what's been marked as Exhibit

Number Five and identify it and explain its significance?

A That's a copy of our switcher/pumper

report on the June Joy No. 2 Well, and the well was first

part of May. We got the well pumping the first day of June and this is what the well has made since that time on a daily

production -- first production from the well was the latter

basis.

On the basis of what's contained in Exhibits Four and Five, do you have an opinion as to whether the total daily production from both zones before commingling would have exceeded the combined oil limitation as set forth in the rules and regulations of the -- of this Commission?

A. Unfortunately not.

Does either zone produce more water than

LY W. BOYD, C.S.I Rt. I Box 193-B anta Fe, New Mexico 87501 Phone (995) 455-7409 İÖ

11

12

13

14

16

18

19

21

22

23

the combined oil limit?

A. No. The well was fracted using water and the water production from the well is declining and I would say that within a year it will be making less than I barrel of water a day. I hope it's making more oil than that.

MR. STAMETS: Tom, do Exhibits Four and Five represent the Dakota only or both zones?

A. No, the commingled production.

MR. STAMETS: Okay

Q Are you able to estimate the future production capabilities of each zone?

A. Well, I would estimate that 80 percent of the oil is coming from the Gallup horizon and 20 percent from the Dakota horizon, and as to the production, I hope it levels out at about 10 barrels a day, at least.

Q Please refer to Exhibit Number Six and identify that and explain its significance.

A. Well, this is a Dakota-Gallup cross section, showing the logs from the April Surprise No. 2 and the June Joy No. 2.

The April Surprise No. 2 was drilled first

It had a good looking zone in the Dakota at 6122 to 6132.

We perforated this zone and it made 850 Mcf of gas natural.

We did not stimulate the zone, so in the June Joy -- I mean

in the April Surprise No. 2, it is the only zone that's pro-

5

10

11

12

13

16

17

19

21

22

23

ducing and it looks like a commercial well and a new discovery 10 or 15 miles from any other Dakota production.

We then, because of lease expiration, drilled the June Joy 2. We -- on logging the June Joy 2, we found that the comparable zone in -- to the producing horizon in the April Surprise 2 was a lot thinner and the well was structurally low and it didn't look very favorable, but we perforated it and tested it by itself and it made water. We then set a bridge plug, squeeze retainer, at 6003 and squeezed off that zone.

So being disappointed in the outcome of the well, we looked for a salvage type operation and decided to perforate a zone in the Upper Dakota from 5082 to -- excuse me, 5882 to 5890, and we also perforated zones in the Mancos Shale, which would be Gallup equivalents, that are shown on the cross section.

We have no good sands in the -- what would be the Gallup equivalent. These are silt zones and -- but if there is some natural fracturing associated with the zones we can -- they'll produce oil as a general rule, and this well is producing oil.

Mr. Dugan, please refer to Exhibits Number Seven and Eight.

These are just a copy of the logs from each well that we brought along and are submitting for the

12

13

16 17

18 19

21 22

23

Commission's information.

This would be a full copy of the log where the cross section only shows a portion of the wellbore.

Mr. Dugan, would you -- are you able to describe the fluid characteristics of each zone?

Well, we haven't tested each zone separately but referring back to our map, we did a similar type operation on our Big 8 Well, which is in Section 8, Township 24 North, Range 9 West. The oil from the Dakota horizon in this well was 48 gravity and the oil from the Gallup horizon was 40, 41 gravity. That well was tested and each zone was tested separately, so I would assume that the -- any oil produced would be-from the June Joy 2, would be similar to that well.

In your professional opinion would the combination of fluids result in the formation of precipitants which would be damaging to either of the reservoirs?

In your opinion will the total value of the crude produced be reduced by commingling?

No, it should be the same.

What are the estimated bottom hole pressures from each zone?

Well, again referring back to the Big 8 No. 1 Well, we -- the bottom hole pressure of the Dakota zone

there was 2200 psi, approximately; and the bottom hole pres-

sure in the Gallup horizon was approximately 1500 psi.

	3	Q.	Is the ownership of the zones common?
	4	А.	Yes. Dugan Production owns all rights
:	5	to the Basin Dakota	on the June Joy lease.
	6	Q	In your professional opinion will the
	7	commingling in any	way jeopardize the efficiency of present
	8	or future secondary	recovery operations, or do you know?
	9	A.	I'm afraid there's no secondary recovery
.	10	prospects in the Ju	ne Joy area, in either horizon.
7. BOYD, C.S. 1 Box 193-B New Mexico 87501 (303) 455-7409	11	Q	Have the offset operators you identified
W. BQ Rt. 1 Box Fe, New N	12	at the start of the	hearing been notified of this filing?
SALLY W. BOYD, Rt. 1 Box 193-B Santa Fe, New Mexico Phone (505) 455-7-	13	A.	Yes, and we have a waiver for the com-
Ø	14	mingling, downhole	commingling of both of the operators.
	15	Q	Did you receive those waivers?
	16	A.	That would be from
	17		MR. STAMETS: Have one from Joan Chorney
	18	and R. K. Cramer.	
	19		MR. ROBERTS: Okay.
	20	A	Yeah that's the only other offset oper-
	21	ator.	
	22	Q	Mr. Dugan, were Exhibits One through
	23	Eight either prepar	ed by you or at your direction and under
) 	24	your supervision?	
	25	A.	Yes, they were.
		en e	

•

.

 MR. ROBERTS: We move that Exhibits One through Eight be admitted.

學學的發展,這當樣各種中最多一個

MR. STAMETS: These exhibits will be admitted.

In your professional opinion, will the commingling of the production from the Basin Dakota gas Pool and the undesignated Gallup oil pool in the wellbore of the June Joy No. 2 Well result in the recovery of additional hydrocarbons, prevention of waste, and the protection of correlative rights?

A. Yes. It's quite obvious that this is a salvage type operation and even after one month that there would undoubtedly be oil that would not be recovered if it wasn't handled in this manner.

MR. ROBERTS: We have no other testimony.

CROSS EXAMINATION

BY MR. STAMETS:

Mr. Dugan, I presume you've got, or will have, 40 acres dedicated to this well in both the Gallup and Dakota zones, is that right?

A. Yes.

Q. Okay. And then you indicated there was another well which was commingled in these two zones. I believe you called it the Big 8.

SALLY W. BOYD, C Rt. 1 Box 193-B Santa Fe, New Medico 87 Phone (305) 455-7409

11

12

13

16

17

19

21

22

We did complete the Big 8 No. 1 in the Dakota formation. We did get approval to commingle it, the Dakota and the Gallup.

We produced the Dakota by itself for a period of time. The Dakota was making about 12 barrels of oil a day and 80 barrels of water a day.

So we didn't have a mthod of disposing of that water, so at this point we have temporarily abandoned the Dakota formation. We have a Model A bridge plug set in it and we have completed the Gallup formation. We're just producing the Gallup by itself at this time until we can figure out what to do with that water or decide we want to go back to the Dakota formation.

Q What's the location of that well?

A Okay, it's shown on that map and it's in the southwest quarter of Section 8, Township 24 North, Range 9 West. It's not real plain but it's the double symboled well there right by the pipeline towards the west side of the section.

Q Okay.

MR. STAMETS: Are there any other questions of the witness? He may be excused.

Anything further in this case?

The case will be taken under advisement.

CERTIFICATE

I, SALLY W. BOYD, C.S.R., DO HEREBY CERTIFY that the foregoing Transcript of Hearing before the Oil Conservation Division was reported by me; that the said transcript is a full, true, and correct record of the hearing, prepared by me to the best of my ability.

Souly W. Boyd CSE

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 6735

Oil Conservation Division

15

10

11

12

13

16 17

18

20

21 22

300	6	511	4 280	0 9 3		6	Skelly	5
211	, -	6		<u> </u>	106 0 EBU	100 33 E81	5900	Abigel, Adams
		Ory Creak	NW Pred 19	011 011	2 Kell hile for	5xelly 107	Tee Skally	Shelly
	7	8	9	10	8.8	6 12 6	202 "65"	Oman P 8
			Federal_	EBU	EBU.	<u> </u>	ESU	126
	H.L.Finnin	LyncoOll	Tenneco + 5			Skelly 2		So Vinion Roteck
	ICATION FOR DOWN JOY #2 WELL	HOLE COMMINGLIN	G	15	14	<i>E </i>	18	127 125
Unit San	B, Sec. 25, T24 Juan County, New	N, R10W Mexico				· · · · · · · · · · · · · · · · · · ·		Whifley Schwen
	No. 6935 bit No.				Benson Montin Green		Dugan	Dugin
A. 👞	■ USA NM-25842 Dugan Producti	B. US	A NM-4958 gan Production G	22 orp.	2 6	2 A Ougen		20 <i>\</i>
В. 🕳	USA NM-5991	F. — US	A NM-4958 gan Production C		TomC	Morry May	p 0	. 4
c. 🚄	UNLEASED FEDER ACREAGE-US GEO	AL GDE	DICÁTED ACREAGE asin Dakota Gas		Kirby ixpl	\$ \$ \$ \$		The state of the s
	SURVEY	US	A NM-5991 gan Production C	27	2	×	Dugar. ¥O	29
D	USA NM-30019 Joan Chorney (5	(0x)	11 Location		Smith Led	Cuna dan	Recit Surprise	
	R.K. Kramer (5	INE JOY #2 WELL			ф' ₆			
		NG LEASES AND O	PERATORS	3.4	35	36	31	32
}					Rijen Foderal		5 5	•
			R-10)-W		· · · · · · · · · · · · · · · · · · ·	R-	9-W

do = dugan production corp.

APPLICATION FOR DOWNHOLE COMMINGLING JUNE JOY #2 WELL Unit B, Sec. 25, T24N, R10W San Juan County, New Mexico Case No. 6935 Exhibit No. 3

Dugan Production Corp. June Joy #2 790' FNL - 1670' FEL Sec 25 T24N R10W San Juan County, NM

MORNING REPORT

Moved in and rigged up Four Corners Drlg Co. Rig #5. Spudded 12-1/4" hole @ 3:00 p.m. 3-18-80. Drilled to 223'. Ran 7 jts 8-5/8" OD 24# 8R ST&C limited service casing. TE 197' set @ 209' RKB. Cemented w/125 sx class "B" plus 2% CaCl. POB 6:45 p.m. 3-18-80. Cement Circulated. WOC

3-20-80 Drlg @2232' w/wtr. Dev. survey 1/20 @ 1069', 10 @ 1673', 10 @ 1829'.

3-21-80 Drlg @ 3389' w/wtr. Dev. survey 1° @ 2349', 1/2° @ 2863', 1° @ 3255'.

3-22-80 Drlg @ 4143' w/wtr. Dev. survey 1-1/40 @ 3740'.

3-23-80 Drlg @ 4825' w/wtr. Dev. survey 1-1/40 @ 4326', 1-1/40 @ 4709'.

3-24-80 Trip @ 5367'. WT 8.9 VIS 35 Dev. survey 10 @ 5242'.

3-25-80 Drig @ 5811'. WT 9.0 VIS 55 Dev. survey 1-1/20 @ 5367'.

3-26-80 Drlg @ 6161'. WT 9.2 VIS 80 Dev. survey 1-1/20 @ 6070'.

3-27-80. TD 6175'. Finished drlg 7-7/8" hole. Conditioned hole for logging. POH. Made attempt to log. Unable to get below 545'. Made trip in hole to 1500'. Washed out bridges and circulated. Made second attempt to log. Tool stopped @ 1250'. Made trip to bottom w/drill pipe. Now POH to attempt to log. Conditioned mud. POH and ran IES and CDL logs by GO Wireline. Trip in hole and laid down drill pipe. Ran 158 jts of 4-1/2" OD J-55 10.5# 8R csg. TE 6176' set @ 6175'.

Dowell cemented first stage as follows: 10 bbl CW-100 250 sx class "B" w/4% gel and 1/4# celloflake per sx, 150 sx class "B" w/1/4# celloflake per sx. Total slurry 557 cu ft. Csg reciprocated throughout job. POB @ 4:30 a.m. with 1200 psi. DV tool open @ 1600 psi. Rig circulated for 3 hts.

Dowell cemented second stage as follows: 10 bbl CW-100, 400 sx 65/35 w/12% gel and 1/4# celloflake per sx followed by

709 BLOOMFIELD RD. • P. O. BOX 208 • FARMINGTON, NEW MEXICO 87401 • PHONE: 505-325-0238

Dugan Production Corp. June Joy #2 Page 2

3-28-80

(cont'd) 100 sx class "B" w/4% gel and 1/4# celloflake per sx. Total slurry 1203 cu ft. POB @ ô:20 a.m. w/2800 psi. Full returns throughout both stages with 8 bbls of CW-100 returned to surface on 2nd stage. Set slips and released rig @ 9:30 a.m.

3-31-80 Moved onto location and rigged up Bedford Inc. pulling unit. Went in hole with bit and 104 jts of 2-3/8" EUE drill string

4-01-80 Tagged tool @ 4080' and drilled out. Went to 6150' and circulated bottom for 1 hr. Tripped tbg out of hole.

4-02-80 Rigged up Jetronics and ran GR and CCL logs. (Note: Logs are 6' deeper than open hole logs!)

Jetronics perforated as follows: 5884-5892 (8 holes) 6048-6056 (8 holes)

Rigged down Jetronics and went in hole with tbg and Baker Model "R" packer with 33' stinger below packer. Rigged up Western and spotted 100 gal of 15% HCl at bottom of tbg. Packer was set in comparison @ 5842' w/15000 psi. Western hooked up on the back side and pressure tested to 3000 psi which checked good.

Western hooked up on the and broke down zone w/1600 psi followed by 400 gal of 15% HCl and 25 RCN frac balls. Good ball action with maximum pressure @ 3950 psi.

Pressure was released and tbg was run to bottom to scrape balls off and reset @ 5973'. Western hooked up and pumped the following: 2100 psi @ 4.5 B/M down back side 3200 psi @ 3.2 B/M down tbg Rigged down Western and shut well in.

- 4-03-80 Small amount of pressure on both tbg and back side, but would not register on gauge.
- 4-04-80 Small amount of pressure on tbg and none on back side Made three runs on tbg without any success. Unseated packer and pulled 4 jts and set packer @ 5842'. Swabbed on tbg until dry with some show of oil. Dropped 6 soap sticks and shut well in.
- 4-05-80 Less than 50 psi on tbg and csg. Water level @ 2000'.

 Swabbed large amounts of water with show of heavy oil.

 Well did not kick off so pulled tbg.

4-7-80 Went in hole with tbg and Baker Model K-1 mechanical set cement retainer and set retainer at 6003' KB.

Cementers Inc hooked up and loaded back side with water. Hooked up on tbg and pumped into formation @ 3 B/M @ 1700 psi. Squeezed zone with 50 sx class "B" @ 2 B/M and max pressure of 3400 psi. Shut well in w/3000 psi @ 1:28 p.m. Pulled tbg

4-8-80 Rigged up Western and fraced Dakota as follows:

120 bb1 pad 120 bb1 w/1/2#/gal 20-40 sand 536 bb1 w/1#/gal 20-40 sand 94 bb1 flush

Screened out with only 36 bbl of flush pumped. Should have 259' of 20-40 sand in 4-1/2'' casing.

Total 25,000# sand, 812 bbl of slick water with 2-1/2#/1000 gal FR-2 plus 1 gal/1000 gal aquafTow.

Max 3500 psi @ 16 B/M
Avg 3300 psi @ 13 B/M
Min 3100 psi @ 0 B/M
ISDP 3100 psi SI after 15 min 2000 psi. Waited 45 min and started flowing back.

Rigged up Jetronics and ran GR CCL log from 5170' to 4650'. Perf following with JetiPerforator: 4723-33', 4904-12', 4920-26', 4946-54', 4994-5002', 5010-16', 5097-5105', 4960-68'.

Rigged up Western and broke down zone with 2400 psi and fraced as follows:

500 gal 15% HCl 120 bbl pad 120 bbl w/1/2#/gal 20-40 sand 1250 bbl w/1#/gal 20-40 sand 91 bbl flush Total 55,000# 20-40 sand 1581 bbl slick water w/2-1/2#/1000 gal FR-2 and l gal/1000 gal aquaflow

Max 3400 psi @ 36 B/M Avg 2600 psi @ 31 B/M Min 1500 psi @ 22 B/M ISDP 1000 psi SI after 15 min 900 psi

Dropped total of 15 RCN balls as follows: 340 bbl into frac raised pressur 250 psi, 542 bbl into frac raised pressure 500 psi, 1100 bbl into frac raised pressure 1500 psi.

Shut well in for 2 hrs then started flowing back.

- 4-9-80 Opened well to pit after finding bad casing valve. Well unloaded fluid at high pressure for 1 hr then started to die down. Installed pump out plug in bottom of seating nipple and started in hole w/2-7/8" tbg. Tagged sand @ 5342' and started pumping sand. Shut down for day and went to get additional hoses.
- 4-10-80 Started reversing sand with good luck. Cleaned sand to 5954' and circulated hole for 1-1/2 hrs. Landed tbg @ 5874' KB in 2-3/8" donut. TE 5863.63'. Nippled down BOP and installed tree. Left well open through tbg which came around before clearing location.
- 4-11-80 Well dead upon arrival with 200 psi on casing. Took well head apart to allow swab to enter. Repaired problem and re-installed head. Swabbed well until 1:00 p.m. and rigged down. Well was close to coming around so left tbg open.

4-18-80 Moved in Piney's swabbing unit. Found fluid level @ 500'. Made four swab runs from 5600'. Show of oil.

4-19-80 Found fluid level at 800'. Swabbed well 10 hrs. Swabbing estimated 30 bbls fluid per hour. At end of day fluid level at 2500'. Swabbing from 5600'. Strong gas with each swab run. Swabbing 92% frac water 8% oil.

4-20-80 Shut down - Sunday.

4-21-80 Swabbed well 4 hrs. Well producing 25 BOPD, plus 75 MCFGPD, and 50 bbls frac water/day. Plan to put well on pump.

P. O. BOX 2014

STATE OF NEW MEXICO ENERGY AND MINERALS DEPARTMENT SANTA FE, NEW MEXICO 87501

GAS-OIL RATIO TESTS

Box 208, Farmington, NM	874	01	 					OF - (X)	Sch	reduted []		Com	detion [)	Spec	131 (X)	
	WELL		LOCA	TION		DATE OF	3	CHOKE	TBG.	DAILY	CENGTH			DURING		GAS - OIL	
LEASE NAME	ΝО.	U	s ·	s T		TEST	151		PRESS.	ABLE ABLE	TCST HOUAS		GRAV.	OIL BBLS	GAS M.C.F.	RATIO CU.FT/82L	
June Joy	2	В	25	24	10	6-12-80	Р				24	4	44°	18.47	15	811	
								-	-								
						*						•					
	-										:						
									• .								
			į.		4.				es.							<i>7.</i>	
												· · · ·					
<u> </u>			7 17							*.							
APPLICATION FOR DOWNHOLE COMM	INGL INC		* 2														
JUNE JOY #2 WELL Unit B, Sec. 25, T24N, R10W			1.2	,a/				,							T NATH RETURN 1.5		
San Juan County, New Mexico Case No. 6935 Exhibit No. 4									,				j.				

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 by more than 25 percent. Operator is encouraged to take advantage of this 25 percent tolerance in order that well can be assigned. resed allowables when authorized by the Division.

Gas votumes must be reported in MCF measured at a pressure base of 15,025 pala and a temperature of 60° F. Specific gravity base

. 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 Rule 30; and oppropriate peal rules.

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

(Signature) Prod. Supt.

(Tide) 6-13-80

DUGAN PRODUCTION CORPORATION

SWITCHER REPORT

June 1980

P. O. Box 234 • Farmington, New Mexico

	Opera	ator[Ougan	Produ	ction	Corpor	ation	Lease.	June Joy Well No. 2
									R 10 W County San Juan State NM
` ,	Run S								Intermitter Setting Static Spring
	DATI	bbls	Wate bbls		TBG. PRESS.	CSG. PRESS.	TANK GAUGE	TANK GAUGE	REMARKS
	June 1	0	100	TSTM	_	_		09"	Pumping 10 SPM
	2	5	85	7571	_			10	Pumping 10 SPM 48" Stroke
	3	8	60	TSTM		_		15	
	4	12	40	5	1			20	
	5	17	40	15	-			210	
	6	17	30	15	_	-		3 2	
	7	20	30	22		_	,	42	
	8	19	30	22	-	_		5	
	9	18	25	22	-	_		6-	
ż	10	18	25	22				73	
. ,	11	18	25	1	•	- 4	· · · · ·	84	
	, 12	15	25	15	_			9	
	13	14	18	15	-	-		91	
	14	14	18	15	inte.	-		10=	
	15	15	18	15	-	_		11=	
	16	15	15	15	_			11"	
	17	16	15	15	-		0	14	Sold 225.45 bbls oil
	18	16	15	15	- 4	1		1-10	
	19	14	15	15				25	
	20	15	8	15	_	-		32	
in Tananan	21	12	8	15			. Par	34	
	22	10	8	12	-	-		4-	12
	23	12	8	12	. 			4-	and the second of the second o
	24					ngi ni isang	THE PERIOD	i marini mere	
	25							•,	APPLICATION FOR DOWNHOLE COMMINGLING
	26								JUNE JOY #2 WELL Unit B, Sec. 25, T24N, R10W
	27								San Juan County, New Mexico
()	28	i .				·			Case No. 6935 Exhibit No. 5
600	29							7.	
	30	· ·					¥		
	31	1	İ						

6 5	0 0	45		200	6	5
ott		EBU	106 9	180 30 E80 0	Skelly 48 E G O'C	Ab:qej.' Adama
Ory	NW Prod 17	*Skelly	Skellyllo gos	5xelly 107	Second of the se	Skelly
7 8	9	10	11	6 12 6	2 104 11 4 2 0 2 11 6	ougen Aces 8
	Federal Tenneco	EBU	ê B U	Skelly 17	G	126
H.L.Finnin i Lyncool	d de la contraction de la cont			G		So knigh Rotack
APPLICATION FOR DOWNHOLE COMMIN JUNE JOY #2 WELL Unit B, Sec. 25, T24N, R10W	IGL ING	15	14	<i>E & U</i>	/ 18	176
San Juan County, New Mexico Case No. 6935			Benson Montin Green		Dugan	Whillsy Schwee
Exhibit No. /			\$		Dugan	Dugin O
A. USA NM-25842 B. Dugan Production Corp.	USA NM-4958 Dugan Production Corp	22	23	2 4 Dugan		20 <i>H</i> er v e
B. ■ USA NM-5991 F. ■ Dugan Production Corp.	■ USA NM-4958 Dugan Production Corp		Tom Kirby Expl	Marcu Mau	April Surprise	
C. UNLEASED FEDERAL G. ACREAGE-US GEOLOGICAL SURVEY	DEDICATED ACREAGE (Basin Dakota Gas Poo USA NM-5991		Kiroy Expi	4 6	Ougar.	
	Dugan Production Corp	27	ф' _Р		**	29
D. USA NM-30019 H. Joan Chorney (50%) R.K. Kramer (50%)	Well Location		Smith fed	Cure ding	April Surprise	
JUNE JOY #2 W	化氯化丁二甲基甲二丁烷二甲基甲基乙二甲二甲二二甲二二甲二二甲二二甲二二甲二二甲二二甲二二甲二二甲二二甲二二甲二二) 34	" -	36	31 · · · · · · · · · · · · · · · · · · ·	32
OFFSETTING LEASES A	ND UPERATURS					36
	R-10-	W	Rijen Føderel		R-9	'-W

1.

in in

APPLICATION FOR DOWNHOLE COMMINGLING JUNE JOY #2 WELL Unit B, Sec. 25, T24N, R10W San Juan County, New Mexico Case No. 6935 Exhibit No. 3

Dugan Production Corp. June Joy #2 790' FNL - 1670' FEL Sec 25 T24N R10W San Juan County, NM

MORNING REPORT

Moved in and rigged up Four Corners Drlg Co. Rig #5. Spudded 12-1/4" hole @ 3:00 p.m. 3-18-80. Drilled to 223'. Ran 7 jts 8-5/8" OD 24# 8R ST&C limited service casing. TE 197' set @ 209' RKB. Cemented w/125 sx class "B" plus 2% CaCl. POB 6:45 p.m. 3-18-80. Cement Circulated. WOC

3-20-80 Drlg 02232' w/wtr. Dev. survey 1/2° 0 1069', 1° 0 1673', 1° 0 1829'.

3-21-80 Drlg @ 3389' w/wtr. Dev. survey $1^{\rm o}$ @ 2349', $1/2^{\rm o}$ @ 2863', $1^{\rm o}$ @ 3255'.

3-22-80 Drlg @ 4143' w/wtr. Dev. survey 1-1/40 @ 3740'.

3-23-80 Drlg @ 4825' w/wtr. Dev. survey 1-1/40 @ 4326', 1-1/40 @ 4709'.

3-24-80 Trip @ 5367'. WT 8.9 VIS 35 Dev. survey 10 @ 5242'.

3-25-80 Drlg @ 5811'. WT 9.0 VIS 55 Dev. survey 1-1/20 @ 5367'.

3-26-80 Drlg @ 6161'. WT 9.2 VIS 80 Dev. survey 1-1/20 @ 6070'.

3-27-80. TD 6175'. Finished drlg 7-7/8" hole. Conditioned hole for logging. POH. Made attempt to log. Unable to get below 545'. Made trip in hole to 1500'. Washed out bridges and circulated. Made second attempt to log. Tool stopped @ 1250'. Made trip to bottom w/drill pipe. Now POH to attempt to log. Conditioned mud. POH and ran IES and CDL logs by GO Wireline. Trip in hole and laid down drill pipe. Ran 158 jts of 4-1/2" OD J-55 10.5# 8R csg. TE 6176' set @ 6175'.

3-28-80 Dowell cemented first stage as follows: 10 bbl CW-100 250 sx class "B" w/4% gel and 1/4# celloflake per sx, 150 sx class "B" w/1/4# celloflake per sx. Total slurry 557 cu ft. Csg reciprocated throughout job. POB @ 4:30 a.m. with 1200 psi. DV tool open @ 1600 psi. Rig circulated for 3 hrs.

Dowell cemented second stage as follows: 10 bbl CW-100, 400 sx 65/35 w/12% gel and 1/4# celloflake per sx followed by

709 BLOOMFIELD RD. • P. O. BOX 208 • FARMINGTON, NEW MEXICO 87401 • PHONE: 505-325-0238

3-28-80

(cont'd) 100 sx class "B" w/4% gel and 1/4# celloflake per sx. Total slurry 1203 cu ft. POB @ 8:20 a.m. w/2800 psi. Full returns throughout both stages with 8 bbls of CW-100 returned to surface on 2nd stage. Set slips and released rig @ 9:30 a.m.

3-31-80 Moved onto location and rigged up Bedford Inc. pulling unit. Went in hole with bit and 104 jts of 2-3/8" EUE drill string

4-01-80 Tagged tool @ 4080' and drilled out. Went to 6150' and circulated bottom for 1 hr. Tripped tbg out of hole.

4-02-80 Rigged up Jetronics and ran GR and CCL logs. (Note: Logs are 6' deeper than open hole logs!)

Jetronics perforated as follows: 5884-5892 (8 holes) 6048-6056 (8 holes)

Rigged down Jetronics and went in hole with tbg and Baker Model "R" packer with 33' stinger below packer. Rigged up Western and spotted 100 gal of 15% HCl at bottom of tbg. Packer was set in comparison @ 5842' w/15000 psi. Western hooked up on the back side and pressure tested to 3000 psi which checked good.

Western hooked up on the and broke down zone w/1600 psi followed by 400 gal of 15% HCl and 25 RCN frac balls. Good ball action with maximum pressure @ 3950 psi.

Pressure was released and tbg was run to bottom to scrape balls off and reset @ 5973'. Western hooked up and pumped the following: 2100 psi @ 4.5 B/M down back side 3200 psi @ 3.2 B/M down tbg Rigged down Western and shut well in.

- 4-03-80 Small amount of pressure on both tbg and back side, but would not register on gauge.
- 4-04-80 Small amount of pressure on tbg and none on back side Made three runs on tbg without any success. Unseated packer and pulled 4 jts and set packer @ 5842'. Swabbed on tbg until dry with some show of oil. Dropped 6 soap sticks and shut well in.
- 4-05-80 Less than 50 psi on the and csg. Water level @ 2000' Swabbed large amounts of water with show of heavy oil. Well did not kick off so pulled the.

4-7-80 Went in hole with tbg and Baker Model K-1 mechanical set cement retainer and set retainer at 6003' KB.

Cementers Inc hooked up and loaded back side with water. Hooked up on tbg and pumped into formation @ 3 B/M @ 1700 psi. Squeezed zone with 50 sx class "B" @ 2 B/M and max pressure of 3400 psi. Shut well in w/3000 psi @ 1:28 p.m. Pulled tbg

4-8-80 — Rigged up Western and fraced Dakota as follows:

120 bbl pad 120 bbl w/1/2#/gal 20-40 sand 536 bbl w/1#/gal 20-40 sand 94 bbl:flush

Screened out with only 36 bbl of flush pumped. Should have 259' of 20-40 sand in 4-1/2" casing.

Total 25,000# sand, 812 bbl of slick water with 2-1/2#/1000 gal FR-2 plus 1 gal/1000 gal aquafTow.

Max 3500 psi @ 16 B/M Avg 3300 psi @ 13 B/M Min 3100 psi @ 0 B/M ISDP 3100 psi \odot SI after 15 min 2000 psi. Waited 45 min and started flowing back.

Rigged up Jetronics and ran GR CCL log from 5170' to 4650'. Perf following with Jet:Perforator: 4723-33', 4904-12', 4920-26', 4946-54', 4994-5002', 5010-16', 5097-5105', 4960-68'.

Rigged up Western and broke down zone with 2400 psi and fraced as follows:

500 gal 15% HCl 120 bbl pad 120 bbl w/1/2#/gal 20-40 sand 1250 bbl w/1#/gal 20-40 sand 91 bbl flush Total 55,000# 20-40 sand 1581 bbl slick water w/2-1/2#/1000 gal FR-2 and 1 gal/1000 gal aquaflow

Max 3400 psi @ 36 B/M Avg 2600 psi @ 31 B/M Min 1500 psi @ 22 B/M ISDP 1000 psi SI after 15 min 900 psi

Dropped total of 15 RCN balls as follows: 340 bbl into frac raised pressure 250 psi, 542 bbl into frac raised pressure 500 psi, 1100 bbl into frac raised pressure 1500 psi.

Shut well in for 2 hrs then started flowing back.

- 4-9-80 Opened well to pit after finding bad casing valve. Well unloaded fluid at high pressure for 1 hr then started to die down. Installed pump out plug in bottom of seating nipple and started in hole w/2-7/8" tbg. Tagged sand @ 5342' and started pumping sand. Shut down for day and went to get additional hoses.
- 4-10-80 Started reversing sand with good luck. Cleaned sand to 5954' and circulated hole for 1-1/2 hrs. Landed tbg @ 5874' KB in 2-3/8" donut. TE 5863.63'. Nippled down 80P and installed tree. Left well open through tbg which came around before clearing location.
- 4-11-80 Well dead upon arrival with 200 psi on casing. Took well head apart to allow swab to enter. Repaired problem and re-installed head. Swabbed well until 1:00 p.m. and rigged down. Well was close to coming around so left tbg open.

4-18-80	Moved in Piney's swabbing unit. Found fluid level @ 500'. Made four swab runs from 5600'. Show of oil.
4-19-80	Found fluid level at 800'. Swabbed well 10 hrs. Swabbing estimated 30 bbls fluid per hour. At end of day fluid level at 2500'. Swabbing from 5600'. Strong gas with each swab run Swabbing 92% frac water 8% oil.
4-20-80	Shut down - Sunday.
4-21-80	Swabbed well 4 hrs. Well producing 25 BOPD, plus 75 MCFGPD, and 50 bbls frac water/day. Plan to put well on pump.

P. O. NOX 2018 SANTA FE, NEW MEXICO 87501

form C-116 Revised 10-1-78

. . GAS - OIL RATIO TESTS

Operator Dugan Production Corp.			Peo	asin	Dakot	a				Cov	San	Juan				
Box 208, Farmington, NM	874	01						OF - (X)	Sch	eduled [7]		Comp	telion [)	£p e c	121 [X]
	WELL		LOC	ATION		DATE OF	s	CHOKE	TBG.	DAILY		Р	ROD, C	URING	TEST GAS - OI	
LEASE NAME	ΝО.	U	s ·	τ	R	TEST	STATE		PRESS.	IALLOW	TEST HOURS	WATER BBLS.	GRAV.	01L 83LS	GAS M.C.F.	RATIO CU.FT/88L
June Joy	2	В	25	24	10	6-12-80	P				24	4	44°	18.47	15	811
													e.		·	
					1								-			ŕ
APPLICATION FOR DOWNHOLE COMM JUNE JOY #2 WELL Unit B, Sec. 25, T24N, R10W San Juan County, New Mexico Case No. 6935 Exhibit No. 4	INGL ING				<i>(</i> -				•						3*1	

No well will be assigned an allowable greater than the amount of oll 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 easigned increased allowables when authorized by the Division.

Gas volumes must be reported in MCF measured at a pressure base of 15,025 pale 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.

Hall original and one copy of this report to the district office of the New Mexico Oil Conservation Division Rule 301 and appropriate pool rules.

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

(Signature) Prod. Supt.

(Tide) 5-13-80

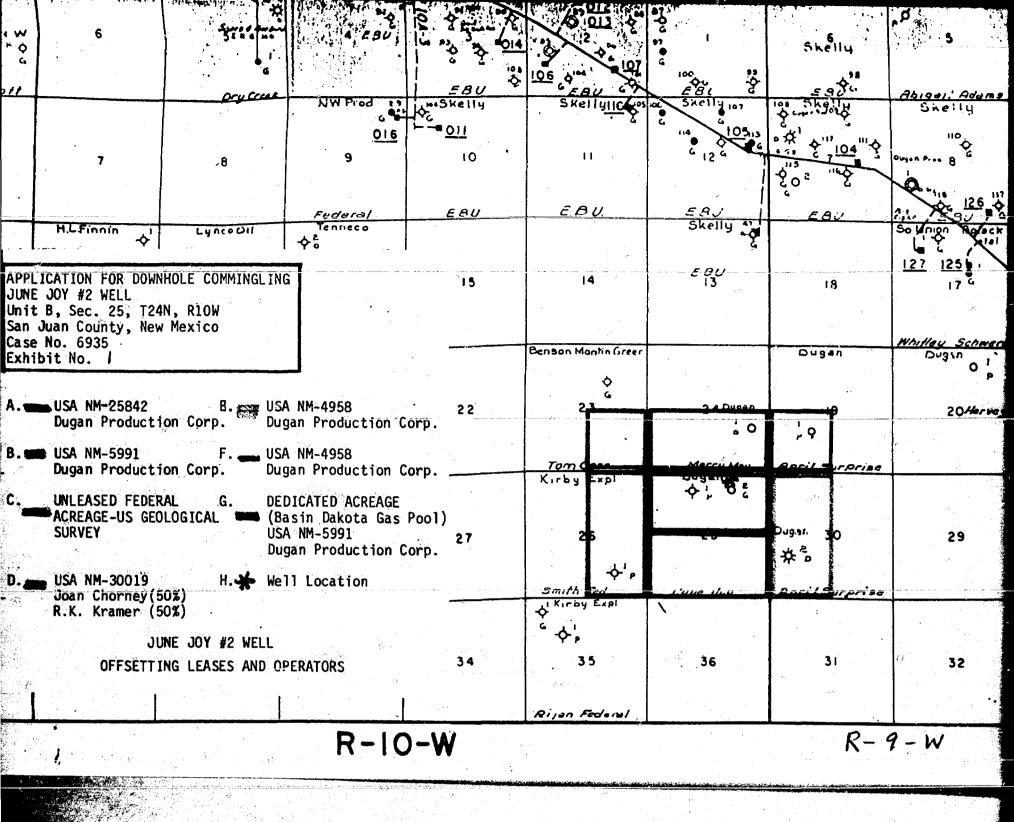
DUGAN PRODUCTION CORPORATION

June 1980

P. O. Box 234

Farmington, New Mexico

-	ounc 19					S \	 	HER	REPORT
	Operat	or D	ugan .	Produ	ction				June Joy Well No. 2
\bigcirc									R 10 W County San Juan State NM
									Intermitter Setting Static Spring
***************************************	DATE	TOIL	Wate	r Gas	TBG.	csg.	TANK	TANK	
		1		MCF		PRESS,	GAUGE	GAUGE	REMARKS
J	ın <u>e 1</u>	0	+	TSTM		-		09"	1 4 7 1 1 1 1 2 1 1 1
	2	5	85	757/	· 			100	48" Stroke
	3	8	60	TSTM	_	_		12	
	4	12	40	5	_	-		22	
<u> </u>	5	11	40	15	-			2.70	3
	6	17	 	15		_		33	
		20		22				43	
		20						52	***************************************
	8	19		22		-			<u> </u>
	9	18	22	22		_		65	
	10	18	25	22	e			75	
₽	11	18	25	22	-	1		87	
	12	15	25	15			÷	9	
\mathcal{C}	13	14	18	15		_	,	91	
Nas	14	14	18	15				105	
	15	15	18	15		_		112	
	16	15	15	15	-	_		11"	
	1'7	16	15			_	- 81 (27) (2.2)	75	Sold 225.45 bbls oil
·	18	16	15	15	_	_		1-10	
	19	14	15	15		_		2-	
	20	15	8	15	-	-		32	
	21	12	8	15	-	-	*.	32	
	22	10	8	12	_		4.	42	
% 		12	8	12	-	21 22	_ : :	4-	and the second s
	24								APPLICATION FOR DOWNHOLE COMMINGLING
	25				·.				JUNE JUY #2 WELL
	26						1 3		Unit B, Sec. 25, T24N, R10W San Juan County, New Mexico
: ·	27		to the second second second				<u></u>		Case No. 6935 Exhibit No. 5
6	28	 	7 2						
		 							
	29					S.	2.2	*	
	30	 							
	31	1			- 1				



APPLICATION FOR DOWNHOLE COMMINGLING
JUNE JOY #2 WELL
Unit B, Sec. 25, T24N, R10W
San Juan County, New Mexico
Case No. 6935
Exhibit No. 3

Dugan Production Corp. June Joy #2 790' FNL - 1670' FEL Sec 25 T24N R10W San Juan County, NM

MORNING REPORT

3-19-80 Moved in and rigged up Four Corners Drlg Co. Rig #5. Spudded 12-1/4" hole @ 3:00 p.m. 3-18-80. Drilled to 223'. Ran 7 jts 8-5/8" OD 24# 8R ST&C limited service casing. TE 197' set @ 209' RKB. Cemented w/125 sx class "B" plus 2% CaCl. POB 6:45 p.m. 3-18-80. Cement Circulated. WOC

3-20-80 Drig @2232' w/wtr. Dev. survey 1/20 @ 1069', 10 @ 1673', 10 @ 1829'.

3-21-80 Drlg @ 3389' w/wtr. Dev. survey 1° @ 2349', 1/2° @ 2863', 1° @ 3255'.

3-22-80 Drlg @ 4143' w/wtr. Dev. survey 1-1/40 @ 3740'.

3-23-80 Drlg @ 4825' w/wtr. Dev. survey 1-1/40 @ 4326', 1-1/40 @ 4709'.

3-24-80 Trip @ 5367'. WT 8.9 VIS 35 Dev. survey 10 @ 5242'.

3-25-80 Drlg @ 5811'. WT 9.0 VIS 55 Dev. survey 1-1/20 @ 5367'.

3-26-80 Drlg 0 6161'. WT 9.2 VIS 80 Dev. survey 1-1/20 0 6070'.

3-27-80. TD 6175'. Finished drlg 7-7/8" hole. Conditioned hole for logging. POH. Made attempt to log. Unable to get below 545'. Made trip in hole to 1500'. Washed out bridges and circulated. Made second attempt to log. Tool stopped 0,1250'. Made trip to bottom w/drill pipe. Now POH to attempt to log. Conditioned mud. POH and ran IES and COL logs by GO Wireline. Trip in hole and laid down drill pipe. Ran 158 jts of 4-1/2" OD J-55 10.5# 8R csg. TE 6176' set 0 6175'.

3-28-80 Dowell cemented first stage as follows: 10 bbl CW-100 250 sx class "B" w/4% gel and 1/4# celloflake per sx, 150 sx class "B" w/1/4# celloflake per sx. Total slurry 557 cu ft. Csg reciprocated throughout job. POB @ 4:30 a.m. with 1200 psi. DV tool open @ 1600 psi. Rig circulated for 3 hts.

Dowell cemented second stage as follows: 10 bbl CW-100, 400 sx 65/35 w/12% gel and 1/4# celloflake per sx followed by

709 BLOOMFIELD RD. • P. O. BOX 208 • FARMINGTON, NEW MEXICO 87401 • PHONE: 505-325-0238

3-28-80

(cont'd) 100 sx class "B" w/4% gel and 1/4# celloflake per sx. Total slurry 1203 cu ft. POB @ 8:20 a.m. w/2800 psi. Full returns throughout both stages with 8 bbls of CW-100 returned to surface on 2nd stage. Set slips and released rig @ 9:30 a.m.

3-31-80 Moved onto location and rigged up Bedford Inc. pulling unit. Went in hole with bit and 104 jts of 2-3/8" EUE drill string

4-01-80 Tagged tool @ 4080' and drilled out. Went to 6150' and circulated bottom for 1 hr. Tripped tbg out of hole.

4-02-80 Rigged up Jetronics and ran GR and CCL logs. (Note: Logs are 6' deeper than open hole logs!)

Jetronics perforated as follows: 5884-5892 (8 holes) 6048-6056 (8 holes)

Rigged down Jetronics and went in hole with tbg and Baker Model "R" packer with 33' stinger below packer. Rigged up Western and spotted 100 gal of 15% HCl at bottom of tbg. Packer was set in comparison @ 5842' w/15000 psi. Western hooked up on the back side and pressure tested to 3000 psi which checked good.

Western hooked up on the and broke down zone w/1600 psi followed by 400 gal of 15% HCl and 25 RCN frac balls. Good ball action with maximum pressure @ 3950 psj.

Pressure was released and tbg was run to bottom to scrape balls off and reset 0 5973'. Western hooked up and pumped the following: 2100 psi 0 4.5 B/M down back side 3200 psi 0 3.2 B/M down tbg Rigged down Western and shut well in.

4-03-80 Small amount of pressure on both tbg and back side, but would not register on gauge.

4-04-80 Small amount of pressure on the and none on back side Made three runs on the without any success. Unseated packer and pulled 4 jts and set packer @ 5842'. Swabbed on the until dry with some show of oil. Dropped 6 soap sticks and shut well in.

4-05-80 Less than 50 psi on tbg and csg. Water level @ 2000' Swabbed large amounts of water with show of heavy oil. Well did not kick off so pulled tbg.

4-7-80 Went in hole with tbg and Baker Model K-1 mechanical set cement retainer and set retainer at 6003' KB.

Cementers Inc hooked up and loaded back side with water. Hooked up on the and pumped into formation @ 3 B/M @ 1700 psi. Squeezed zone with 50 sx class "B" @ 2 B/M and max pressure of 3400 psi. Shut well in w/3000 psi @ 1:28 p.m. Pulled the

4-8-80 -- Rigged up Western and fraced Dakota as follows:

120 bbl pad 120 bbl w/1/2#/gal 20-40 sand 536 bbl w/1#/gal 20-40 sand 94 bbl flush

Screened out with only 36 bbl of flush pumped. Should have 259' of 20-40 sand in 4-1/2'' casing.

Total 25,000# sand, 812 bbl of slick water with 2-1/2#/1000 gal FR-2 plus 1 gal/1000 gal aquafTow.

Max 3500 psi 0 16 B/M Avg 3300 psi 0 13 B/M Min 3100 psi 0 0 B/M ISDP 3100 psi SI after 15 min 2000 psi. Waited 45 min and started flowing back.

Rigged up Jetronics and ran GR CCL log from 5170' to 4650'. Perf following with JetiPerforator: 4723-33', 4904-12', 4920-26', 4946-54', 4994-5002', 5010-16', 5097-5105', 4960-68'.

Rigged up Western and broke down zone with 2400 psi and fraced as follows:

500 gal 15% HCl 120 bbl pad 120 bbl w/1/2#/gal 20-40 sand 1250 bbl w/1#/gal 20-40 sand 91 bbl flush Total 55,000# 20-40 sand 1581 bbl slick water w/2-1/2#/1000 gal FR-2 and 1 gal/1000 gal aquaflow

Max 3400 psi @ 36 B/M Avg 2600 psi @ 31 B/M Min 1500 psi @ 22 B/M ISDP 1000 psi SI after 15 min 900 psi

Dropped total of 15 RCN balls as follows: 340 bbl into frac raised pressure 250 psi, 542 bbl into frac raised pressure 500 psi, 1100 bbl into frac raised pressure 1500 psi.

Shut well in fcr 2 hrs then started flowing back.

- Opened well to pit after finding bad casing valve. Well unloaded fluid at high pressure for 1 hr then started to die down. Installed pump out plug in bottom of seating nipple and started in hole w/2-7/8" tbg. Tagged sand @ 5342' and started pumping sand. Shut down for day and went to get additional hoses.
- 4-10-80 Started reversing sand with good luck. Cleaned sand to 5954' and circulated hole for 1-1/2 hrs. Landed tbg @ 5874' KB in 2-3/8" donut. TE 5863.63'. Nippled down BOP and installed tree. Left well open through tbg which came around before clearing location.
- 4-11-80 Well dead upon arrival with 200 psi on casing. Took well head apart to allow swab to enter. Repaired problem and re-installed head. Swabbed well until 1:00 p.m. and rigged down. Well was close to coming around so left tbg open.

Moved in Piney's swabbing unit. Found fluid level 0 500'. Made four swab runs from 5600'. Show of oil. 4-18-80 4-19-80

Found fluid level at 800'. Swabbed well 10 hrs. Swabbing estimated 30 bbls fluid per hour. At end of day fluid level at 2500'. Swabbing from 5600'. Strong gas with each swab run. Swabbing 92% frac water 8% oil.

Shut down - Sunday. 4-20-80

Swabbed well 4 hrs. Well producing 25 BOPD, plus 75 MCFGPD, and 50 bbls frac water/day. Plan to put well on pump. 4-21-80

Cáse No. 6935 Exhibit No. 4 MSERVATION DIVISION P. O. BOX 2086

STATE OF NEW MEXICO ENERGY AND MINERALS DEPARTMENT

SANTA FE, NEW MEXICO 87501

form C-116 Revised 10-1-78

GAS-OIL RATIO TESTS Operator San Juan Gallup Basin Dakota Dugan Production Corp. TYPEOF 87401 Box 208, Farmington, NM TEST - (X) Special XX Scheduled [Constellen [LENGTH OF TEST HOURS PROD. DURING TEST LOCATION DAILY GAS - OIL CHOKE TEG. WELL DATE OF LEASE NAME ALLOW-RATIO WATER GRAV. NO. TEST SIZE PRESS. u ABLE CU.FT/88L BBLS. OIL BaLs. M.C.F. 44° 24 811 2 В 25 24 10 6-12-80 18.47 15 June Joy APPLICATION FOR DOWNHOLE COMMINGLING JUNE JOY #2 WELL Unit B, Sec. 25, T24N, R10W San Juan County, New Mexico

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 faceted by more than 25 percent. Operator is encouraged to take advantage of this 25 percent tolerance in order that well can be easigned. increased allowables when authorized by the Division .

Gas volumes must be reported in MCF measured at a pressure base of 15,025 pala 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.

Mall original and one copy of this report to the district office of the New Mexico Oil Conservation Division in accordance with Rule 301 and appropriate past rules.

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

> (Signature) Prod. Supt.

6-13-80

DUGAN PRODUCTION CORPORATION P. O. Box 234 Formington, New Mexico

SWITCHER REPORT

June 1980

	Operate	orD	ugan	Produ	ction	Corpor	ation_	Lease	June Joy Well No. 2
	Prod. F	m. <u>Ma</u>	ncos	DK	NE/4	, Sec. <u>2</u>	<u>5</u> _, T_	24 N,	R 10 W County San Juan State NM
									Intermitter Setting Static Spring
	DATE	Uil bbls	Wate	r Gas MCF	TBG. PRESS.	CSG. PRESS.	TANK GAUGE	TANK GAUGE	REMARKS
	June 1	0		TSTM		_		0 9"	Pumping 10 SPM
	2	5	+	757A				1-	Pumping 10 SPM 48" Stroke
-	3	8	60	TSTM	-	-		15	1
	4	12	40	5	1	-		20	1. ta
*	5	17	1	15	-		to paragraphical and an other	2.10	(A)
,	6	17	30		-			3 3	La:
	7	20	30	22	-	1		43	11 0
	8	19	30	22		_		5	(lw)
	9	18	25		-	-		6-	
	10	18	25	22				73	
	11	18	25		_	-		84	<u> </u>
	12	15	25		-		**	9	
. ()	13	14		15		_		92	
	14	14	18	15		_		105	:
··	15	15	18	15	-	ļ		11=	
	16	15	15	15		-		11"	
	. 17	16	15	15	-	_		14	Sold 225,45 bb/s oil
	18	16	15	15	_	-		100	
	19	14	15	15	-	-		25	
	20	15	8	15	_	-		3	
	21	12	8	15				321	
	22	10	8	12	-	ا ت	-	42	
	23	12	8	12	_	-		4-	
	24							. X	
	25								APPLICATION FOR DOWNHOLE COMMINGLING
	26		4.	Ì		\$ 1			JUNE JOY #2 WELL Unit B, Sec. 25, T24N, R10W
	27								San Juan County, New Mexico
	28	<u> </u>						,	Case No. 6935 Exhibit No. 5
-	29	<u> </u>							
	30								
· ·	31			.					
	FORM B		()						

WAIVER OF OBJECTION AND CONSENT TO

WELL CONS EVATION DIVISION

THE DOWNHOLE COMMINGLING OF THE JUNE JOY #2 WEL

Case 6935

The undersigned, as an Operator of a lease offsetting with N/2 of Section 25, Township 24 North, Range 10 West, N.M.P.M., San Juan County, New Mexico, does hereby acknowledge receipt of the Application for Downhole Commingling of the June Joy #2 Well.

The Undersigned hereby waives any objection to this Application and voluntarily consents to the commingling of the June Joy #2 Well as stated in the above mentioned Application.

Dated this 19th day of June, 1980.

Signed:

Joan Chorney 401 Lincoln Towner Bldg. 1860 Lincoln Street

Denver, Colorado 80295

Please send one executed copy to Joe D. Ramey, Division
Director, New Mexico Oil Conservation Division, P.O. Box
2088, Santa Fe, New Mexico, 87501, and return one executed
copy to Dugan Production Corporation, P.O. Box 208, Farmington,
New Mexico 87401. The remaining copy is for your files.

WAIVER OF OBJECTION AND CONSENT TO

THE DOWNHOLE COMMINGLING OF THE JUNE JOY #2 WELL

The undersigned, as an Operator of a lease offsetting

the N/2 of Section 25, Township 24 North, Range 10 West,

N.M.P.M., San Juan County, New Mexico, does hereby acknowledge SANTAFE

receipt of the Application for Downhole Commingling of the

June Joy #2 Well.

The Undersigned hereby waives any objection to this Application and voluntarily consents to the commingling of the June Joy #2 Well as stated in the above mentioned Application.

Dated this A day of June, 1980.

Signed:

R. K. Kramer 410 17th Street Suite 1340

Denver, Colorado 80202

Please send one executed copy to Joe D. Ramey, Division Director, New Mexico Oil Conservation Division, P.O. Box 2088, Santa Fe, New Mexico, 87501, and return one executed copy to Dugan Production Corporation, P.O. Box 208, Farmington, New Mexico 87401. The remaining copy is for your files.

- CASE 6935: Application of Dugan Production Corporation for downhole commingling, San Juan County, New Mexico.

 Applicant, in the above-styled cause, seeks approval for the downhole commingling of Basin-Dakota and undesignated Gallup production in the wellbore of its June Joy Well No. 2 located in Unit B of Section 25, Township 24 North, Range 10 West.
- CASE 6936:

 Application of Dugan Production Corporation for compulsory pooling, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Dakota formation underlying the S/2 of Section 26, Township 30 North, Range 14 West, 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 6916: (Continued from June 4, 1980, Examiner Hearing)

Application of Petro-Lewis Corporation for downhole commingling, Lea County, New Mexico.

Applicant, in the above-styled cause, seeks approval for the downhole commingling of the Drinkard and Blinebry production in the wellbore of its State DC Well No. 1, a quadruple completion located in Unit F of Section 19, Township 21 South, Range 37 East.

- CASE 6937: Application of R. N. Hillin for an unorthodox location and dual completion, Eddy County, New Mexico.

 Applicant, in the above-styled cause, seeks approval for the dual completion (conventional) of his

 DWV Well No. 4 to produce gas from the Wolfcamp and Morrow formations thru tubing and the annulus,

 respectively. Applicant further seeks approval of the unorthodox location of said well in the

 Wolfcamp and Pennsylvanian formations at a point 800 feet from the South line and 2000 feet from

 the East line of Section 34, Township 19 South, Range 28 East.
- CASE 6938: Application of Anadarko Production Company for an unorthodox gas well location, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Dalport Federal Well No. 1 660 feet from the South and West lines of Section 20, Township 13 South, Range 31 East, Southeast Chaves Queen Gas Area, the W/2 of said Section 20 to be dedicated to the well.
- CASE 6939: Application of Anadarko Production Company for compulsory pooling, Eddy County, New Mexico.

 Applicant, in the above-styled cause, seeks an order pooling all mineral interests at a depth from 2400 feet to 5000 feet below the surface, Turkey Track Field, underlying the NE/4 SE/4 of Section 10, Township 19 South, Range 29 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 6940: Application of Adobe Oil Company for compulsory pooling, Lea County, New Mexico.

 Applicant, in the above-styled cause, seeks an order pooling all mineral interests down through the Wolfcamp formation underlying the NW/4 SE/4 for oil and the SE/4 for gas, Section 23, 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 6941: Application of Ellwade Corporation for a non-standard gas proration unit, Eddy County, New Mexico.

 Applicant, in the above-styled cause, seeks approval of a 129.52-acre non-standard gas proration unit comprising the W/2 of partial Section 33, Township 26 South, Range 30 East, Ross Draw-Wolfcamp area, to be dedicated to its Ross Draw Well No. 1 located in Unit C of said Section 33.
- CASE 6942: Application of Benson-Montin-Greer Drilling Corporation for amendment of Order No. R-2565-B, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks the amendment of Rule 2 of the Special Pool Rules for the West Puerto Chiquito-Mancos Oil Pool as promulgated by Order No. R-2565-B to provide that all 320-acre spacing and proration units in said pool would comprise either the U/2 or the E/2 of a governmental section, provided however, that one injection well would have dedicated thereto the N/2 of Section 1, Township 24 North, Range 1 West, and also that the short 400-acre sections on the South side of Township 27 North, Range 1 West, would each comprise a single spacing unit.
- CASE 6943: Application of Benson-Montin-Greer Drilling Corporation for a unit agreement, Rio Arriba County,
 New Mexico. Applicant, in the above-styled cause, seeks approval for the East Puerto ChiquitoMancos Unit Area, comprising 9,769 acres, more or less, of Pederal, Indian, and fee lands in Townships 26 and 27 North, Ranges 1 East and 1 West.

dugan production corp.

Case 6935

June 12, 1980

Joe D. Ramey Division Director New Mexico Oil Conservation Division P.O. Box 2088 Santa Fe, New Mexico 87501

Re: Application for Downhole Commingling June Joy #2 Welli (Basin Dakota Pool and Undesignated Gallup Pool) San Juan County, New Mexico

Dear Mr. Ramey:

Enclosed please find three copies of the above referenced Application.

I previously verbally requested this matter be placed on the June 25, 1980 Docket and was advised by the New Mexico Oil Conservation Division that this request would be honored. I was also advised that a written application must be filed with the NMOCD on or before June 13, 1980.

Please advise if you need further information.

Sincerely,

Doming Robert

Tommy Roberts Attorney

TR:nw

Enclosures

JUN 1 3 1980

CIL CONS. RVATION DIVISION SANTA FE

709 BLOOMFIELD RD. . P. O. BOX 208 . FARMINGTON, NEW MEXICO 87401 . PHONE: 505-325-0238

Joe D. Ramey June 12, 1980 Page Two

cc: Frank Chavez, Supervisor
District III Office
New Mexico Oil Conservation Division
1000 Rio Brazos Road
Aztec, New Mexico 87410

James Sims U.S. Geological Survey Box 959 Farmington, New Mexico 87401

Joan Chorney 401 Lincoln Tower Bldg. 1860 Lincoln Street Denver, Colorado 80295

R. K. Kramer 410 17th Street Suite 1340 Denver, Colorado 80202

OIL CONSERVATION DIVISION STATE OF NEW MEXICO

In the Matter of the Application of Dugan Production Corp. for Downhole Commingling of the June Joy #2 Well in San Juan County, New Mexico

Case 6935

APPLICATION-

Pursuant to Rule 303 C of the Rules and Regulations of the State of New Mexico Oil Conservation Division, the Applicant, Dugan Production Corp., by and through its attorney, Tommy Roberts, hereby makes application for approval of downhole commingling in the well bore of the June Joy #2 Well in San Juan County, New Mexico.

The Applicant further states:

- 1. The Operator of the June Joy #2 Well will be the Applicant, Dugan Production Corp., whose address is P.O. Box 208, Farmington, New Mexico 87401.
- 2. The June Joy #2 Well will be located on Federal Oil and Gas Lease Serial # NM-5991 insofar as said lease covers the following described lands:

Township 24 North, Range 10 West, N.M.P.M.

Section 25: All (Basin Dakota Pool)
Section 25: All (Undesignated Gallup Pool)
San Juan County, New Mexico

3. The leg

legal location of the well will be as follows:

Township 24 North, Range 10 West, N.M.P.M.

Section 25: Unit Letter B

San Juan County, New Mexico

SANTA FE San Juan County, New Mexico

4. The June Joy #2 Well is not currently dually completed in the

Basin Dakota Pool and the Undesignated Gallup Pool.

- 5. The June Joy #2 Well will be capable of only low marginal production from the Basin Dakota Pool, and from the Undesignated Gallup Pool.
 - 6. The ownership of the above mentioned Pools is common.
- 7. The proposed commingling from the above Pools will result in the recovery of additional hydrocarbons, the prevention of waste and the protection of correlative rights.

8. All operators of leases offsetting the dedicated acreage for this well, the U.S. Geological Survey and the Supervisor of the District III Office of the New Mexico Oil Conservation Division have been mailed a copy of this Application under cover letter dated June 12, 1980.

WHEREFORE, the Applicant requests this Application be set for hearing on June 25, 1980, and that after said hearing the New Mexico Oil Conservation Division grant this Application by giving approval to the downhole commingling of the June Joy #2 Well in San Juan County, New México.

Respectfully submitted,

Tommy Roberts

Attorney for Applicant P.O. Box 208

Farmington, N.M. 87401

JUNE JOY #2 WELL

Application for Approval of Downhole Commingling OFFSET LEASES AND OPERATORS

1. USA NM 25842

Township 24 North, Range 10 West, N.M.P.M.
Section 24: S/2
San Juan County, New Mexico
Operator: Dugan Production Corp.
P.O. Box 208
Farmington, NM 87401

- 2. Township 24 North, Range 10 West, N.M.P.M.

 Section 23: SE/4
 San Juan County, New Mexico
 Unleased Federal Lands
- 3. USA NM 30019

Township 24 North, Range 10 West, N.M.P.M.
Section 26: E/2
San Juan County, New Mexico
Operator: Joan Chorney (50%)
401 Lincoln Tower Bldg.
1860 Lincoln Street
Denver, Colorado 80295

R. K. Kramer (50%) 410 17th Street Suite 1340 Denver, Colorado 80202

4. USA NM 5991

Township 24 North, Range 10 West, N.M.P.M.

Section 25: S/2
San Juan County, New Mexico
Operator: Dugan Production Corp.
P.O. Box 208
Farmington, NM 87401

5. USA NM 4958

Township 24 North, Range 9 West, N.M.P.M.
Section 30: W/2
San Juan County, New Mexico
Operator: Dugan Production Corp.
P.O. Box 208
Farmington, NM 87401

6. USA NM 4958

Township 24 North, Range 9 West, N.M.P.M.
Section 19: SW/4
San Juan County, New Mexico
Operator: Dugan Production Corp.
P.O. Box 208
Farmington, NM 87401

OIL CONSERVATION DIVISION STATE OF NEW MEXICO

Case 6935

In the Matter of the Application of Dugan Production Corp. for Downhole Commingling of the June Joy #2 Well in San Juan County, New Mexico



APPLICATION

Pursuant to Rule 303 C of the Rules and Regulations of the State of New Mexico Oil Conservation Division, the Applicant, Dugan Production Corp., by and through its attorney, Tommy Roberts, hereby makes application for approval of downhole commingling in the well bore of the June Joy #2 Well in San Juan County, New Mexico.

The Applicant further states:

- 1. The Operator of the June Joy #2 Well will be the Applicant, Dugan Production Corp., whose address is P.O. Box 208, Farmington, New Mexico 87401.
- 2. The June Joy #2 Well will be located on Federal Oil and Gas Lease Serial # NM-5991 insofar as said lease covers the following described lands:

Township 24 North, Range 10 West, N.M.P.M.

Section 25: All (Basin Dakota Pool)

Section 25: All (Undesignated Gallup Pool)

San Juan County, New Mexico

3. The legal location of the well will be as follows:

Township 24 North, Range 10 West, N.M.P.M.
Section 25: Unit Letter B
San Juan County, New Mexico

- 4. The June Joy #2 Well is not currently dually completed in the Basin Dakota Pool and the Undesignated Gallup Pool.
- 5. The June Joy #2 Well will be capable of only low marginal production from the Basin Dakota Pool, and from the Undesignated Gallup Pool.
 - 6. The ownership of the above mentioned Pools is common.
- 7. The proposed commingling from the above Pools will result in the recovery of additional hydrocarbons, the prevention of waste and the protection of correlative rights.

8. All operators of leases offsetting the dedicated acreage for this well, the U.S. Geological Survey and the Supervisor of the District III Office of the New Mexico Oil Conservation Division have been mailed a copy of this Application under cover letter dated June 12, 1980.

WHEREFORE, the Applicant requests this Application be set for hearing on June 25, 1980, and that after said hearing the New Mexico Oil Conservation Division grant this Application by giving approval to the downhole commingling of the June Joy #2 Well in San Juan County, New Mexico.

Respectfully submitted,

Tommy Roberts

Attorney for Applicant P.O. Box 208

Farmington, N.M. 87401

JUNE JOY #2 WELL

Application for Approval of Downhole Commingling OFFSET LEASES AND OPERATORS

1. USA NM 25842

Township 24 North, Range 10 West, N.M.P.M.
Section 24: S/2
San Juan County, New Mexico
Operator: Dugan Production Corp.
P.O. Box 208
Farmingtor, NM 87401

2. Township 24 North, Range 10 West, N.M.P.M.
Section 23: SE/4
San Juan County, New Mexico
Unleased Federal Lands

3. USA NM 30019

Township 24 North, Range 10 West, N.M.P.M.
Section 26: E/2
San Juan County, New Mexico
Operator: Joan Chorney (50%)
401 Lincoln Tower Bldg.
1860 Lincoln Street
Denver, Colorado 80295

R. K. Kramer (50%) 410 17th Street Suite 1340

Denver, Colorado 80202

4. USA NM 5991

Township 24 North, Range 10 West, N.M.P.M.
Section 25: S/2
San Juan County, New Mexico
Operator: Dugan Production Corp.
P.O. Box 208

Farmington, NM 87401

5. USA NM 4958

Township 24 North, Range 9 West, N.M.P.M.
Section 30: W/2
San Juan County, New Mexico
Operator: Dugan Production Corp.
P.O. Box 208

Farmington, NM 87401

6. USA NM 4958

Township 24 North, Range 9 West, N.M.P.M.

Section 19: SW/4
San Juan County, New Mexico
Operator: Dugan Production Corp.
P.O. Box 208
Farmington, NM 87401

OIL CONSERVATION DIVISION

STATE OF NEW MEXICO

Case 6935

In the Matter of the Application of Dugan Production Corp. for Downhole Commingling of the June Joy #2 Well in San Juan County, New Mexico



APPLICATION

Pursuant to Rule 303 C of the Rules and Regulations of the State of New Mexico Oil Conservation Division, the Applicant, Dugan Production Corp., by and through its attorney, Tommy Roberts, hereby makes application for approval of downhole commingling in the well bore of the June Joy #2 Well in San Juan County, New Mexico.

The Applicant further states:

- 1. The Operator of the June Joy #2 Well will be the Applicant, Dugan Production Corp., whose address is P.O. Box 208, Farmington, New Mexico 87401.
- 2. The June Joy #2 Well will be located on Federal Oil and Gas Lease Serial # NM-5991 insofar as said lease covers the following described lands:

Township 24 North, Range 10 West, N.M.P.M.
Section 25: All (Basin Dakota Pool)
Section 25: All (Undesignated Gallup Pool)
San Juan County, New Mexico

3. The legal location of the well will be as follows:

Township 24 North, Range 10 West, N.M.P.M.
Section 25: Unit Letter B
San Juan County, New Mexico

- 4. The June Joy #2 Well is not currently dually completed in the Basin Dakota Pool and the Undesignated Gallup Pool.
- 5. The June Joy #2 Well will be capable of only low marginal production from the Basin Dakota Pool, and from the Undesignated Gallup Pool.
 - 6. The ownership of the above mentioned Pools is common.
- 7. The proposed commingling from the above Pools-will result in the recovery of additional hydrocarbons, the prevention of waste and the protection of correlative rights.

8. All operators of leases offsetting the dedicated acreage for this well, the U.S. Geological Survey and the Supervisor of the District III Office of the New Mexico Oil Conservation Division have been mailed a copy of this Application under cover letter dated June 12, 1980.

WHEREFORE, the Applicant requests this Application be set for hearing on June 25, 1980, and that after said hearing the New Mexico Oil Conservation Division grant this Application by giving approval to the downhole commingling of the June Joy #2 Well in San Juan County, New Mexico.

Respectfully submitted,

Tommy Roberts

Attorney for Applicant P.O. Box 208

Farmington, N.M. 87401

JUNE JOY #2 WELL

Application for Approval of Downhole Commingling OFFSET LEASES AND OPERATORS

USA NM 25842

Township 24 North, Range 10 West, N.M.P.M. Section 24: S/2

San Juan County, New Mexico Operator: Dugan Production Corp.

P.O. Box 208

Farmington, NM 87401

2. Township 24 North, Range 10 West, N.M.P.M. Section 23: SE/4 San Juan County, New Mexico Unleased Federal Lands

3. USA NM 30019

Township 24 North, Range 10 West, N.M.P.M. Section 26: E/2

San Juan County, New Mexico Operator: Joan Chorney (50%) 401 Lincoln Tower Bldg.

1860 Lincoln Street Denver, Colorado 80295

R. K. Kramer (50%) 410 17th Street Suite 1340.

Denver, Colorado 80202

USA NM 5991

Township 24 North, Range 10 West, N.M.P.M.

Section 25: S/2

San Juan County, New Mexico Operator: Dugan Production Corp.

P.O. Box 208

Farmington, NM 87401

USA NM 4958

Township 24 North, Range 9 West, N.M.P.M.

Section 30: W/2

San Juan County, New Mexico

Operator: Dugan Production Corp.

P.O. Box 208

Farmington, NM 87401

6. USA NM 4958

Township 24 North, Range 9 West, N.M.P.M.
Section 19: SW/4

San Juan County, New Mexico

Operator: Dugan Production Corp. P.O. Box 208

Farmington, NM 87401

Called in by Jommie Roberts 6/2/80

Alugan Production Corporation blownhole Commingling Basin-Klakota and Undesignated Gallup June Joy # 2-B Section 25, T24N, RIOW San Juan County

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

CASE NO. Order No. R-6396 APPLICATION OF DUGAN PRODUCTION CORPORATION SAN JUAN FOR DOWNHOLE COMMINGLING, COUNTY, NEW MEXICO. ORDER OF THE DIVISION BY THE DIVISION: This cause came on for hearing at 9 a.m. on June 25 19 80 , at Santa Fe, New Mexico, before Examiner Richard L. Stamets NOW, on this day of June , 1980 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, Dugan Production Corporation, is the owner and operator of the June Joy Well No. 2 located in Unit B of Section 25 , Township 24 North Range 10 West , NMPM, San Juan County, New Mexico. (3) That the applicant seeks authority to commingle Undergun Ved Basip-Dakota and undesignated Gallup 01 production within the wellbore of the above-described well.

Ĺ

- (4) That from the Books-Dakota zone, the subject well is capable of low morginal production only.
- (5) That from the mesignated Gallup 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 Aztec 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, 80

 percent of the commingled production should be allocated to the 8000-Dakota zone, and 20

 percent of the commingled production to the undesignated Gallup zone.

(ALPERNATE)

each of the commingled zones in the wells, applicant should consult with the supervisor of the Aztec district office of the Division and determine an allocation formula for each of the production zones.

IT IS THEREFORE ORDERED:

(1) That the applicant, Dugan Production Corporation, is
hereby authorized to commingle describator Dakota 0/ and
undesignated Gallup O. / production within the wellbore of
June Joy Well No. 2 , located in Unit B of
Section 25 , Township 24 North , Range 10 West ,
NMPM, San Juan County, New Mexico.
(2) That the applicant shall consult with the Supervisor
of the Aztec 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 80 percent of the commingled
production shall be allocated to the Dakota
zone and percent of the commingled
production shall be allocated to the underignated Gallup
zone.
(3) That the operator of the subject well shall immediately
notify the Division's Aztec 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.
$oldsymbol{\ell}$