

Case NO.

6586

Application

Transcripts

Small Exhibits

ETC.

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
State Land Office Building
Santa Fe, New Mexico
11 July 1979

EXAMINER HEARING

IN THE MATTER OF:

Application of Dugan Production) CASE
for downhole commingling, San Juan) 6586
County, New Mexico.)

BEFORE: Richard L. Stamets

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Oil Conservation Division: Ernest L. Padilla, Esq.
Legal Counsel for the Division
State Land Office Bldg.
Santa Fe, New Mexico 87503

For the Applicant: Richard Tully, Esq.
Attorney at Law
Farmington, New Mexico

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I N D E X

THOMAS A. DUGAN

Direct Examination by Mr. Tully	3
Cross Examination by Mr. Stamets	10

E X H I B I T S

Applicant Exhibit One, Map	3
Applicant Exhibit Two, Map	4
Applicant Exhibit Three A, Map	5
Applicant Exhibit Three B, Map	5
Applicant Exhibit Three C, Map	6
Applicant Exhibit Four A, Log	6
Applicant Exhibit Four B, Log	6
Applicant Exhibit Four C, Log	6
Applicant Exhibit Four D, Log	6

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1 MR. STAMETS: We'll call next Case 6586.

2 MR. PADILLA: Application of Dugan Pro-
3 duction Corporation for downhole commingling, San Juan
4 County, New Mexico.

5 MR. TULLY: May it please the Division,
6 I'm Richard Tully, General Counsel for Dugan Production
7 Corporation, Farmington, New Mexico; one witness, Mr.
8 Thomas A. Dugan.

9 If acceptable to the Division, we will
10 just continue on from the previous case.

11 MR. STAMETS: Let the record show that the
12 witness has been previously sworn and qualified.

13
14 THOMAS A. DUGAN
15 being called as a witness and being duly sworn upon his
16 oath, testified as follows, to-wit:

17
18 DIRECT EXAMINATION

19 BY MR. TULLY:

20 Q Mr. Dugan, I'm now handing you what is
21 entitled Application and in addition what has been labeled
22 Exhibit Number One. Would you describe these for us,
23 please?

24 A Okay. This is our application to the Oil
25 Conservation Division asking for permission to commingle

1 downhole the production from Fruitland and Pictured Cliffs
2 zones in four wells in Township 30 North, 14 West, and the
3 Exhibit One is just a map showing the location of these
4 four wells.

5 The four wells are the Big Field No. 2
6 Well, which is in Section 3, and this well has been drilled
7 and we're in the process of completing it. So far we
8 haven't successfully concluded that that's a gas well.

9 The Big Field No. 5 Well that's in the
10 southeast quarter of Section 10 has not been drilled. It's
11 right next to a Dakota well that we have drilled.

12 The Dinero No. 1 Well in the northeast
13 quarter of Section 13, this well has been drilled and is
14 on production -- and is now currently producing, and the
15 Molly Pitcher 2 in the northeast quarter of Section 14, this
16 well has been drilled and completed but is not producing.

17 Also I'd like to draw the Commission's
18 attention to three wells that have recently been completed
19 in the south part of the township, the Mayre No. 3 Well in
20 the southeast quarter of Section 27. This well has been
21 completed in the Fruitland PC zone.

22 Also a Ladd Petroleum well in the north-
23 west quarter of Section 35 has been completed in the Fruit-
24 land PC zone.

25 And our Winifred No. 2 Well that is in

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1 the northeast quarter of Section 35 has been completed in
2 the Fruitland PC zone, and these wells will be in the Harper
3 Hill Fruitland PC Pool. They are extensions of that pool
4 and I don't know if the limits have been extended up there
5 yet, but I'm sure that they will be a portion of that pool.

6 The two wells in Section 35 are currently
7 producing. The well in 27 is not producing.

8 Q Are any of these four wells presently
9 dually completed?

10 A The Molly Pitcher, yes. The Molly Pitcher
11 No. 2 Well is perforated in both the Fruitland and Pictured
12 Cliffs formations, and also the Big Field No. 2 Well is
13 perforated in both horizons.

14 MR. STAMETS: Did you mean dually com-
15 pleted or downhole?

16 A Downhole commingled, excuse me.

17 Q Referring now to Exhibit Number Two, would
18 you please describe this exhibit for us?

19 A Well, this shows the production from the
20 Connors Fruitland Pool in brown up in Sections 1 and 12.
21 This is a 1978 production, probably the cum, too, but I
22 believe those wells were first delivered in '78 and then in
23 yellow, in Sections 31 and 33, are 1978 productions from
24 the Twin Mound Pictured Cliffs Pool and then the dedicated
25 acreage is outlined in green and we didn't show production

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1 from the wells in what will be the Harper Hill Fruitland-
2 PC Pool, because they were just first delivered in the last
3 month or two.

4 Q Referring now to Exhibit Number Three A,
5 would you describe this exhibit for us, please?

6 A That's our daily drilling report on the
7 Big Field 2 Well, showing the activities that have taken
8 place on that well, and that we've perforated both the
9 Fruitland and PC zone. We've fraced both of them together,
10 and we're currently trying to get the well to produce, and
11 so far we haven't.

12 Q Referring now to Exhibit Number Three B,
13 would you describe this exhibit for us?

14 A Okay, this is our daily drilling report
15 on the Dinero No. 1 Well. The well was drilled last August
16 a year ago, and was completed natural, making 150 Mcf per
17 day.

18 Q And referring to the two pages immediately
19 following that, would you describe those for us, included in
20 Exhibit Three B?

21 A Okay, that's right. We've moved -- we
22 moved in and fraced that -- the Dinero 1 in June of this
23 year and helped the well to some extent. The well is cur-
24 rently producing with the aid of a compressor. We'd like
25 to go in and perforate the Fruitland. We haven't done that

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1 yet. We can discuss that further when we get on over to the
2 logs.

3 Q Okay. Referring now to Exhibit Number
4 Three C, would you describe this for us, please?

5 A This is our daily drilling report on the
6 Molly Pitcher 2 Well, showing that we've perforated both
7 the PC and the Fruitland zones and fraced the well. The
8 well is making a small amount of gas, 350 Mcf. I guess
9 that's not a small amount of gas. To me that's a large
10 amount of gas.

11 It's also making quite a little bit of
12 water.

13 Q Referring now to Exhibits Four A and Four
14 B, Four C, and Four D, would you describe these exhibits
15 for us, please?

16 A Okay. This is the -- the Four A is a log
17 of the Big Field 2 Well, showing the -- some of them I put
18 the zones that we perforated on, which we perforated 1198
19 to 1208 in the Pictured Cliffs. We also perforated 1078
20 to 1092 in the Fruitland horizon.

21 MR. STAMETS: That's on the Big Field No. 2?

22 A Yes, sir.

23 Q And the Big Field No. 5 Well, did you
24 indicate that that well has not been drilled at this parti-
25 cular time?

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1 A That well has not been drilled; however,
2 when we do drill it, it will be on the same location as the
3 Big Field No. 1 Well, which was a Dakota well, and the Ex-
4 hibit Four A -- Four B is a log of the -- is a copy of our
5 log in the -- showing the Pictured Cliffs formation and
6 also the Fruitland zone that we'd like to attempt a completion
7 in, the Pictured Cliffs being at about 1812 and the Fruit-
8 land zone that we were hoping to make a completion in at
9 1480 to 1500.

10 Q Now Exhibit Number Four C.

11 A Is a Xeroxed copy of the Dinero log. We
12 have perforated that well 1618 to 28 in the Pictured Cliffs
13 horizon. We'd also like to open up some zones in the
14 Fruitland horizon, which would be at 1400 and also at 1470
15 to 75.

16 Q And Exhibit Number Four D.

17 A Is a copy of the Molly Pitcher 2 log and
18 we perforated this well -- we perforated it 1679 to 89;
19 1586 to 89; 1492 to 97.

20 Q In your professional opinion do you feel
21 that the production from the Fruitland and the Pictured
22 Cliffs zones in this area will only result in low marginal
23 production?

24 A Unfortunately, I'm afraid that's true.

25 Q For each of these four wells is the owner-

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1 ship of these two pools common?

2 A Yes.

3 MR. TULLY: At this time I would move for
4 the introduction of Exhibits One, Two, Three A, Three B,
5 Three C, Four A, Four B, Four C, and Four D, into evidence.

6 MR. STAMETS: These exhibits will be ad-
7 mitted.

8 Q Mr. Dugan, would you give us your prognosis
9 of future production from these wells?

10 A Well, it's in an area that hasn't produced
11 too well up to this date and hopefully with a -- we might
12 get it doing a little better, but I'm afraid that they'll
13 continue to be marginal wells.

14 Q What about the allocation of the future
15 production from these wells?

16 A Well, I was in hopes that we could one day
17 extend the Fruitland PC Pool, the Harper Hill Fruitland PC
18 Pool up in that direction, and include these wells in -- in
19 that pool, where the production would not be allocated, it
20 would be all one common reservoir.

21 I talked to Al Kendrick about this. He was
22 a little reluctant to do it because of the existence of that
23 Connor Fruitland Pool in Sections 1 and 12; also there's
24 quite a gap between the Harper Hill Fruitland PC Pool and
25 these wells.

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1 Q If there is not an extension of this
2 Fruitland-Pictured Cliffs Pool, what other method of allo-
3 cation do you propose?

4 A Well, it could be mutually agreed upon for-
5 mula with Al Kendrick and myself, would be highly satisfactory
6 with me.

7 Q Do you currently have any pressures from
8 these two zones in this area?

9 A I don't have any Fruitland pressures and
10 the Pictured Cliffs pressure is around 350 pounds.

11 Q In your professional opinion will the
12 proposed commingling from these zones result in recovery of
13 additional hydrocarbons from each of the pools, thereby
14 preventin waste, and that the commingling will not violate
15 correlative rights?

16 A If we're lucky enough to get the wells to
17 produce from both horizons, why, it's going to produce some
18 gas that otherwise wouldn't be produced, and I don't believe
19 there would be any correlative rights affected.

20 MR. TULLY: I have no further questions
21 except one to the Division.

22 Have you received any waivers?

23 MR. STAMETS: Yes, we have waivers from
24 Marathon, Southland, Odessa Natural, El Paso Natural, Marshall
25 and Winston, Inc., Tenneco. That appears to be the entire

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1 list.

2 MR. TULLY: Thank you.

3

4 CROSS EXAMINATION

5 BY MR. STAMETS:

6 Q Mr. Dugan, do either of these zones make
7 any liquids?

8 A Yes. They both make a little water but
9 no oil.

10 Q A little, how much are you talking about?

11 A Well, it varies by wells. That Molly
12 Pitcher 2 Well seems to be making quite a little bit of
13 water after we fraced it. I don't have an exact measurement
14 on it, but I'd say in the neighborhood of 10 to 15 barrels
15 a day.

16 The Dinero Well is making 2 to 3 barrels
17 of water a day.

18 The Big Field 2 is making enough water
19 that we haven't been able to get it to flow steady; not
20 much gas. I'm not sure that we're going to make a success-
21 ful completion out of the Big Field 2 at this particular
22 time.

23 Q Are the -- is the Dinero Well already com-
24 mingled between the two zones?

25 A No.

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- 1 Q Which zone is it producing from?
- 2 A PC.
- 3 Q Have you been able to tell if the Fruitland
- 4 is making any water in the area?
- 5 A In the area?
- 6 Q Uh-huh.
- 7 A Yeah, I think down in the Harper Hill area
- 8 that the Fruitland in some cases does make water. I'm not
- 9 familiar with the Odessa Natural Gas Fruitland wells to the
- 10 north. And I think that the Big Field 2 Well is making
- 11 water from the Fruitland.
- 12 Q Will you be able to produce these wells
- 13 naturally or will you have to put a compressor on them?
- 14 A We'll have to have a compressor on all of
- 15 them, because that line pressure out there, that's a Dakota
- 16 gathering system and it runs around 300 psi, the shutins
- 17 are in that neighborhood, 300 to 350.
- 18 Q Now you indicated you didn't have any
- 19 Fruitland pressures at all?
- 20 A I don't personally and I didn't look up
- 21 the Odessa Natural pressures. I should have but I didn't.
- 22 Q Where -- which wells are those?
- 23 A That would be those Connor wells, in the
- 24 Connor Fruitland Pools in Sections 1 and 12.
- 25 Q Okay, those should be of record with the

1 Division.

2 A Yes, they should be. I should have looked
3 it up, but I didn't.

4 Q Okay. Didn't blow out when you drilled
5 it, anyway.

6 A No, sir.

7 MR. STAMETS: Any other questions of the
8 witness? He may be excused.

9 Anything further in this case?

10 The case will be taken under advisement.

11
12 (Hearing concluded.)
13
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REPORTER'S CERTIFICATE

I, SALLY W. BOYD, a Court Reporter, DO HEREBY
CERTIFY that the foregoing and attached Transcript of
Hearing before the Oil Conservation Division was reported
by me; that said transcript is a full, true, and correct
record of the hearing, prepared by me to the best of my
ability, knowledge, and skill, from my notes taken at the
time of the hearing.

Sally W. Boyd C.S.R.
Sally W. Boyd, C.S.R.

I do hereby certify that the foregoing is
a complete record of the proceedings in
the Examiner hearing of Case No. 6585
heard by me on 2-16 1979
Richard P. Ham, Examiner
Oil Conservation Division

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BEFORE: Richard L. Stamets

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Attorney at Law
Farmington, New Mexico

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I N D E X

THOMAS A. DUGAN

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E X H I B I T S

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Applicant Exhibit Three C, Map	6
Applicant Exhibit Four A, Log	6
Applicant Exhibit Four B, Log	6
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Applicant Exhibit Four D, Log	6

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MR. STAMETS: We'll call next Case 6586.

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

MR. TULLY: May it please the Division, I'm Richard Tully, General Counsel for Dugan Production Corporation, Farmington, New Mexico; one witness, Mr. Thomas A. Dugan.

If acceptable to the Division, we will just continue on from the previous case.

MR. STAMETS: Let the record show that the witness has been previously sworn and qualified.

THOMAS A. DUGAN

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

DIRECT EXAMINATION

BY MR. TULLY:

Q Mr. Dugan, I'm now handing you what is entitled Application and in addition what has been labeled Exhibit Number One. Would you describe these for us, please?

A Okay. This is our application to the Oil Conservation Division asking for permission to commingle

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1 downhole the production from Fruitland and Pictured Cliffs
2 zones in four wells in Township 30 North, 14 West, and the
3 Exhibit One is just a map showing the location of these
4 four wells.

5 The four wells are the Big Field No. 2
6 Well, which is in Section 3, and this well has been drilled
7 and we're in the process of completing it. So far we
8 haven't successfully concluded that that's a gas well.

9 The Big Field No. 5 Well that's in the
10 southeast quarter of Section 10 has not been drilled. It's
11 right next to a Dakota well that we have drilled.

12 The Dinero No. 1 Well in the northeast
13 quarter of Section 13, this well has been drilled and is
14 on production -- and is now currently producing, and the
15 Molly Fitcher 2 in the northeast quarter of Section 14, this
16 well has been drilled and completed but is not producing.

17 Also I'd like to draw the Commission's
18 attention to three wells that have recently been completed
19 in the south part of the township, the Mayre No. 3 Well in
20 the southeast quarter of Section 27. This well has been
21 completed in the Fruitland PC zone.

22 Also a Ladd Petroleum well in the north-
23 west quarter of Section 35 has been completed in the Fruit-
24 land PC zone.

25 And our Winifred No. 2 Well that is in

1 the northeast quarter of Section 35 has been completed in
2 the Fruitland PC zone, and these wells will be in the Harper
3 Hill Fruitland PC Pool. They are extensions of that pool
4 and I don't know if the limits have been extended up there
5 yet, but I'm sure that they will be a portion of that pool.

6 The two wells in Section 35 are currently
7 producing. The well in 27 is not producing.

8 Q Are any of these four wells presently
9 dually completed?

10 A The Molly Pitcher, yes. The Molly Pitcher
11 No. 2 Well is perforated in both the Fruitland and Pictured
12 Cliffs formations, and also the Big Field No. 2 Well is
13 perforated in both horizons.

14 MR. STAMETS: Did you mean dually com-
15 pleted or downhole?

16 A Downhole commingled, excuse me.

17 Q Referring now to Exhibit Number Two, would
18 you please describe this exhibit for us?

19 A Well, this shows the production from the
20 Connors Fruitland Pool in brown up in Sections 1 and 12.
21 This is a 1978 production, probably the cum, too, but I
22 believe those wells were first delivered in '78 and then in
23 yellow, in Sections 31 and 33, are 1978 productions from
24 the Twin Mound Pictured Cliffs Pool and then the dedicated
25 acreage is outlined in green and we didn't show production

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1 from the wells in what will be the Harper Hill Fruitland-
2 PC Pool, because they were just first delivered in the last
3 month or two.

4 Q Referring now to Exhibit Number Three A,
5 would you describe this exhibit for us, please?

6 A That's our daily drilling report on the
7 Big Field 2 Well, showing the activities that have taken
8 place on that well, and that we've perforated both the
9 Fruitland and PC zone. We've fraced both of them together,
10 and we're currently trying to get the well to produce, and
11 so far we haven't.

12 Q Referring now to Exhibit Number Three B,
13 would you describe this exhibit for us?

14 A Okay, this is our daily drilling report
15 on the Dinero No. 1 Well. The well was drilled last August
16 a year ago, and was completed natural, making 150 Mcf per
17 day.

18 Q And referring to the two pages immediately
19 following that, would you describe those for us, included in
20 Exhibit Three B?

21 A Okay, that's right. We've moved -- we
22 moved in and fraced that -- the Dinero 1 in June of this
23 year and helped the well to some extent. The well is cur-
24 rently producing with the aid of a compressor. We'd like
25 to go in and perforate the Fruitland. We haven't done that

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1 yet. We can discuss that further when we get on over to the
2 logs.

3 Q Okay. Referring now to Exhibit Number
4 Three C, would you describe this for us, please?

5 A This is our daily drilling report on the
6 Molly Pitcher 2 Well, showing that we've perforated both
7 the PC and the Fruitland zones and fraced the well. The
8 well is making a small amount of gas, 350 Mcf. I guess
9 that's not a small amount of gas. To me that's a large
10 amount of gas.

11 It's also making quite a little bit of
12 water.

13 Q Referring now to Exhibits Four A and Four
14 B, Four C, and Four D, would you describe these exhibits
15 for us, please?

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17 of the Big Field 2 Well, showing the -- some of them I put
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19 to 1208 in the Pictured Cliffs. We also perforated 1078
20 to 1092 in the Fruitland horizon.

21 MR. STAMETS: That's on the Big Field No. 2?

22 A Yes, sir.

23 Q And the Big Field No. 5 Well, did you
24 indicate that that well has not been drilled at this parti-
25 cular time?

1 A That well has not been drilled; however,
2 when we do drill it, it will be on the same location as the
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7 in, the Pictured Cliffs being at about 1812 and the Fruit-
8 land zone that we were hoping to make a completion in at
9 1480 to 1500.

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12 have perforated that well 1618 to 28 in the Pictured Cliffs
13 horizon. We'd also like to open up some zones in the
14 Fruitland horizon, which would be at 1400 and also at 1470
15 to 75.

16 Q And Exhibit Number Four D.

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18 we perforated this well -- we perforated it 1679 to 89;
19 1586 to 89; 1492 to 97.

20 Q In your professional opinion do you feel
21 that the production from the Fruitland and the Pictured
22 Cliffs zones in this area will only result in low marginal
23 production?

24 A Unfortunately, I'm afraid that's true.

25 Q For each of these four wells is the owner-

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1 ship of these two pools common?

2 A Yes.

3 MR. TULLY: At this time I would move for
4 the introduction of Exhibits One, Two, Three A, Three B,
5 Three C, Four A, Four B, Four C, and Four D, into evidence.

6 MR. STAMETS: These exhibits will be ad-
7 mitted.

8 Q Mr. Dugan, would you give us your prognosis
9 of future production from these wells?

10 A Well, it's in an area that hasn't produced
11 too well up to this date and hopefully with a -- we might
12 get it doing a little better, but I'm afraid that they'll
13 continue to be marginal wells.

14 Q What about the allocation of the future
15 production from these wells?

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17 extend the Fruitland PC Pool, the Harper Hill Fruitland PC
18 Pool up in that direction, and include these wells in -- in
19 that pool, where the production would not be allocated, it
20 would be all one common reservoir.

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22 a little reluctant to do it because of the existence of that
23 Connor Fruitland Pool in Sections 1 and 12; also there's
24 quite a gap between the Harper Hill Fruitland PC Pool and
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1 Q If there is not an extension of this
2 Fruitland-Pictured Cliffs Pool, what other method of allo-
3 cation do you propose?

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5 mula with Al Kendrick and myself, would be highly satisfactory
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8 these two zones in this area?

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19 there would be any correlative rights affected.

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21 except one to the Division.

22 Have you received any waivers?

23 MR. STAMETS: Yes, we have waivers from
24 Marathon, Southland, Odessa Natural, El Paso Natural, Marshall
25 and Winston, Inc., Tenneco. That appears to be the entire

1 list.

2 MR. TULLY: Thank you.

3
4 CROSS EXAMINATION

5 BY MR. STAMETS:

6 Q Mr. Dugan, do either of these zones make
7 any liquids?

8 A Yes. They both make a little water but
9 no oil.

10 Q A little, how much are you talking about?

11 A Well, it varies by wells. That Molly
12 Pitcher 2 Well seems to be making quite a little bit of
13 water after we fraced it. I don't have an exact measurement
14 on it, but I'd say in the neighborhood of 10 to 15 barrels
15 a day.

16 The Dinero Well is making 2 to 3 barrels
17 of water a day.

18 The Big Field 2 is making enough water
19 that we haven't been able to get it to flow steady; not
20 much gas. I'm not sure that we're going to make a success-
21 ful completion out of the Big Field 2 at this particular
22 time.

23 Q Are the -- is the Dinero Well already com-
24 mingled between the two zones?

25 A No.

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
3950 Plaza Blanca (S.E.) 471-2462
Santa Fe, New Mexico 87501

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
3030 Plaza Blanca (SOS) 471-2482
Santa Fe, New Mexico 87501

1 Q Which zone is it producing from?
2 A PC.
3 Q Have you been able to tell if the Fruitland
4 is making any water in the area?
5 A In the area?
6 Q Uh-huh.
7 A Yeah, I think down in the Harper Hill area
8 that the Fruitland in some cases does make water. I'm not
9 familiar with the Odessa Natural Gas Fruitland wells to the
10 north. And I think that the Big Field 2 Well is making
11 water from the Fruitland.
12 Q Will you be able to produce these wells
13 naturally or will you have to put a compressor on them?
14 A We'll have to have a compressor on all of
15 them, because that line pressure out there, that's a Dakota
16 gathering system and it runs around 300 psi, the shutins
17 are in that neighborhood, 300 to 350.
18 Q Now you indicated you didn't have any
19 Fruitland pressures at all?
20 A I don't personally and I didn't look up
21 the Odessa Natural pressures. I should have but I didn't.
22 Q Where -- which wells are those?
23 A That would be those Connor wells, in the
24 Connor Fruitland Pools in Sections 1 and 12.
25 Q Okay, those should be of record with the

1 Division.

2 A Yes, they should be. I should have looked
3 it up, but I didn't.

4 Q Okay. Didn't blow out when you drilled
5 it, anyway.

6 A No, sir.

7 MR. STAMETS: Any other questions of the
8 witness? He may be excused.

9 Anything further in this case?

10 The case will be taken under advisement.

11
12 (Hearing concluded.)
13
14
15
16
17
18
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22
23
24
25

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
3030 Plaza Blanca (S.E.) 471-2463
Santa Fe, New Mexico 87501

REPORT AND CERTIFICATION

I, SALLY W. BOYD, a Court Reporter, DO HEREBY CERTIFY that the foregoing and attached Transcript of Hearing before the Oil Conservation Division was reported by me; that said transcript is a full, true, and correct record of the hearing, prepared by me to the best of my ability, knowledge, and skill, from my notes taken at the time of the hearing.

Sally W. Boyd, C.S.R.

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 _____ 19____.

_____, Examiner
Oil Conservation Division

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
3010 Plaza Blanca (995) 471-4482
Santa Fe, New Mexico 87501



BRUCE KING
GOVERNOR
LARRY KEHOE
SECRETARY

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

July 31, 1979

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501
(505) 827-2434

Mr. Richard Tully
General Counsel
Dugan Production Corporation
P. O. Box 234
Farmington, New Mexico 87401

Re: CASE NO. 6586
ORDER NO. R-6064

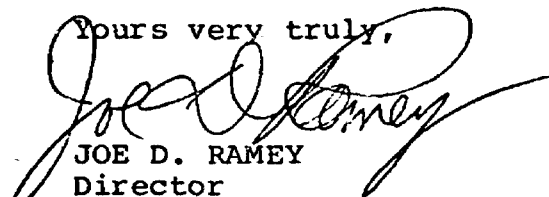
Applicant:

Dugan Production Corporation

Dear Sir:

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

Yours very truly,


JOE D. RAMEY
Director

JDR/fd

Copy of order also sent to:

Hobbs OCD X
Artesia OCD X
Aztec OCD X

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. 6586
Order No. R-6064

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 July 11, 1979,
at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this 30th day of July, 1979, 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 following wells, all in Township
10 North, Range 14 West, NMPM, San Juan County, New Mexico:

Big Field Well No. 2 in Unit C of Section 3;
Big Field Well No. 5 in Unit P of Section 10;
Dinero Well No. 1 in Unit H of Section 13; and the
Molly Pitcher Well No. 2 in Unit H of Section 14.

(3) That the applicant seeks authority to commingle
Conner-Fruitland and undesignated Pictured Cliffs production
within the wellbores of the above-described wells.

(4) That from the Conner-Fruitland zone, the subject
wells are or are expected to be capable of low marginal produc-
tion only.

-2-

Case No. 6586
Order No. R-6064

(5) That from the undesignated Pictured Cliffs zone, the subject wells are or are expected to be 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 wells are 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 any of the subject wells are shut-in for 7 consecutive days.

(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 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 Conner-Fruitland and undesignated Pictured Cliffs production within the wellbores of the following wells, all in Township 30 North, Range 14 West, NMPM, San Juan County, New Mexico:

Big Field Well No. 2 in Unit C of Section 3;
Big Field Well No. 5 in Unit P of Section 10;
Dinero Well No. 1 in Unit H of Section 13; and the
Molly Pitcher Well No. 2 in Unit H of Section 14.

(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.

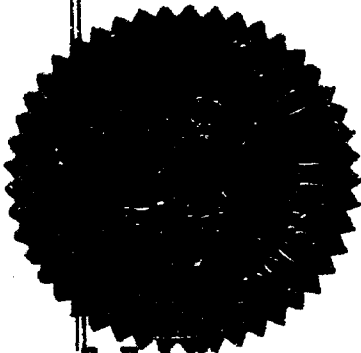
(3) That the operator of the subject well shall immediately notify the Division's Aztec district office any time the wells have been shut-in for 7 consecutive days and shall concurrently present, to the Division, a plan for remedial action.

-3-

Case No. 6586
Order No. R-6064

(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.

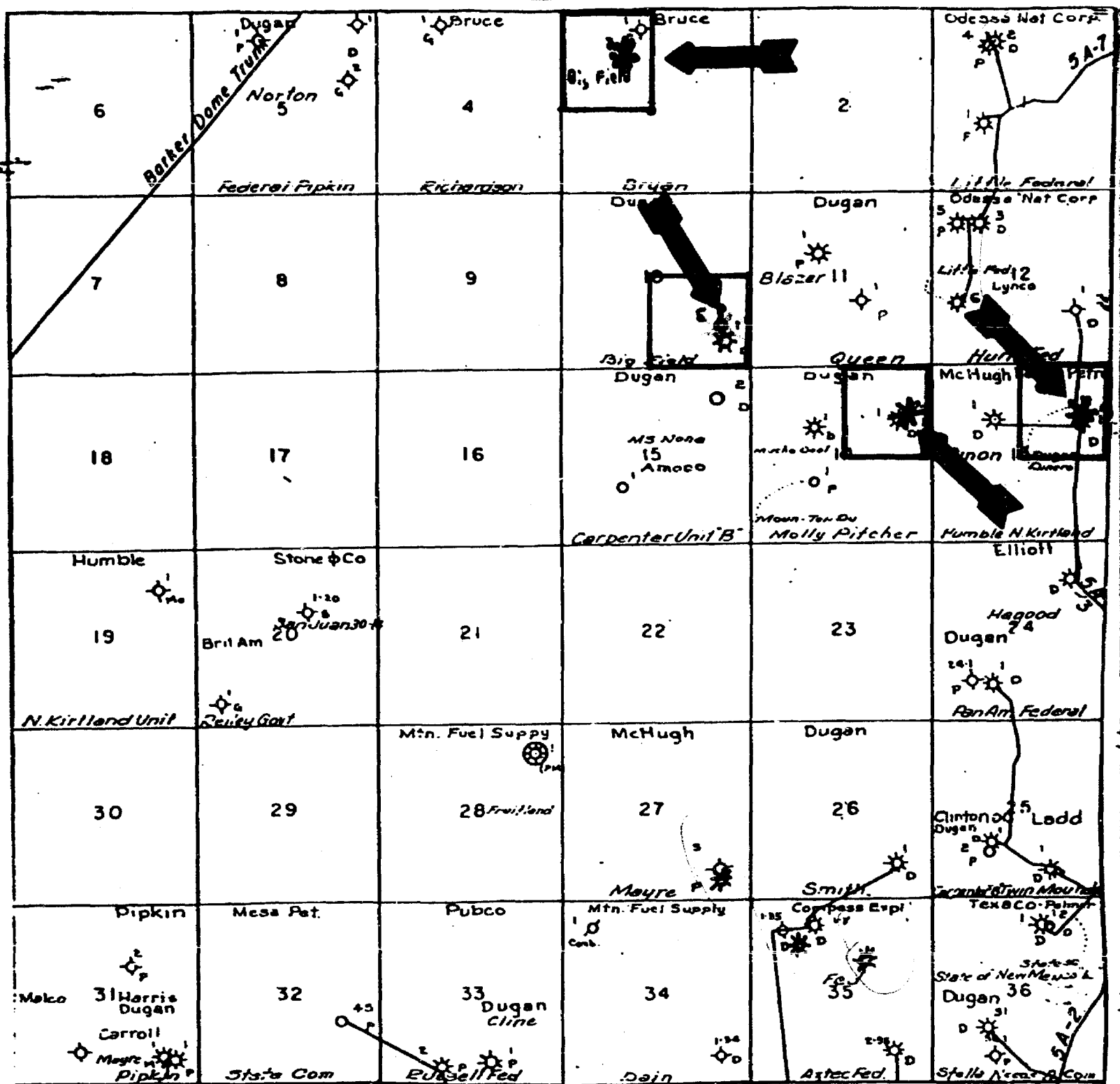


STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

Joe D. Ramey
JOE D. RAMEY
Director

SEAL

id/



Township 30 North, Range 14 West, N.M.P.M.

Dedicated Acreage ———

Big Field #2 Well *

Big Field #5 Well *





Dinero #1 Well *

Molly Pitcher #2 Well *

APPLICATION FOR
DOWNHOLE COMMINGLING
BY DUGAN PRODUCTION CORP.
Big Field #2, Big Field #5,
Dinero #1, and Molly
Pitcher #2 Wells.

Case No. 6586

Exhibit No. 1

6	5	4		2	1317 1 5232
7	8	9		11	12 2829
18	17	16	15		 637
19	20	21	22	23	24
30	29	28	27	26	25
31 6842	32	33 23622	34	35	36

Township 30 North, Range 14 West, N.M.P.M.

1978 PRODUCTION

Conner Fruitland Pool —

San Juan Undesignated Pictured Cliffs Pool —

Twin Mounds Pictured Cliffs Pool —

Dedicated Acreage —

Big Field #2 Well *

Big Field #5 Well *

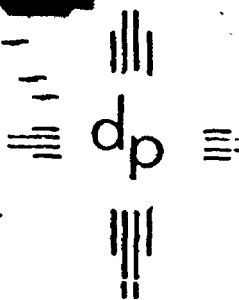
Dinero #1 Well *

Molly Pitcher #2 Well *

APPLICATION FOR DOWNHOLE COMINGLING
BY DUGAN PRODUCTION CORP.
Big Field #2, Big Field #5, Dinero #1,
and Molly Pitcher #2 Wells

Case No. 6586

Exhibit No. 2



dugan production corp.

Dugan Production Corp.
Big Field #2

MORNING REPORT

- 10-14-78 Moved in and rigged up Morrow Drlg Co. Spudded 7-7/8" hole @ 11:00 a.m. Drlg to 65'. Ran 2 jts 5-1/2" OD 14# ST&C csg. TE 63.64' set @ 65' GR. Cemented by Woodco. Cemented w/35 sx. Good cement to surface. Job complete @ 2:30 p.m. 10-13-78.
- 10-15-78 Depth 500'. Drlg 4-3/4" hole w/wtr.
- 10-16-78 Depth 1020'. Drlg 4-3/4" hole w/wtr.
- 10-17-78 Drlg 4-3/4" hole to 1305' TD. Moved in and rigged up Birdwell Logging Co. and ran IES log to TD.
- 10-18-78 TD 1310'. Ran 42 jts 2-7/8" OD 6.4# CW-55 10R reg tbg for csg. TE 1297.50' set @ 1297' GR. Preflushed hole w/100 gals mud sweep. Reciprocated pipe and had good circulation while cementing. Cemented w/50 sx 65-35 w/12% gel w/1/4# cello flake per sx followed by 75 sx class "B" w/1/4# cello flake per sx. Total slurry 214 cu ft. Bumped plug w/1500 psi, released to 750 psi. Shut in. POB 12:45 p.m. 10-17-78.
- 10-27-78 Rigged up Drake Well Service swabbing unit and Blue Jet perforators. PBTB 1275'. Ran GR, collar locator and Neutron correlation log. Swabbed hole down to approx 1000'. Perforated 1198-1208' zone on correlation log, 10 holes 1 spf w/2-1/8" bi wire glass jets. Swabbed well dry on 1st run, waited 15 mins. swabbed dry hole, no sign of gas or water entry.. Loaded hole with 4 Bbl water, fluid level @ 700'. Perforated 1078-1092 zone on correlation log, 14 holes 1 spf w/2-1/8" bi wire glass jets. Perforated 1068-1078 zone on correlation log, 10 holes, 1 spf w/2-1/8" bi wire glass jets. Swabbed hole, recovered load water and coal. Swabbed hole dry, waited 15 min. swabbed again, no water, slight amount of gas ahead of swab.

709 BLOOMFIELD RD. • P. O. BOX 234 • FARMINGTON, NEW MEXICO 87401 • PHONE 505-325-0238

APPLICATION FOR DOWNHOLE COMMINGLING
BY DUGAN PRODUCTION CORP.
Big Field #2, Big Field #5, Dinero #1,
and Molly Pitcher #2 Wells.

Case No. 6586

Exhibit No. 34

10-28-78

Rigged up Allied Services, Pumped 125 gal 15% HCl 1-1/2 B/M, dropped 11 ball sealers, pumped 125 gal 15% HCl @ 1-1/2 B/M, dropped 11 ball sealers, displaced acid w/7 Bbl water @ 1-1/2 B/M. Breakdown pressure of 1700 psi occurred while pumping 4th bbl of acid, estimated 300 ft of water in hole. Ball sealer action occurred during 2nd bbl water displaced, pressure to 1100 psi. Displacement pressure 700-500 psi. Swabbed hole dry w/2 runs, no gas ahead of swab, waited 15 min swabbed again swabbed 1/4 bbl acid tasting water, waited 15 min, swabbed again swabbed 1/4 bbl acid tasting water. Shut well in.

6-6-79

Foam fraced well by Nowsco and Western Co w/70 quality foam. Used 18 gals adafoam, 13,000# 10-20 sand, 71.5 Bbls wtr., 71,600 SCF of nitrogen (Had to cut frac job short of planned job due to Western Co. blender failure). Dropped 20 ball sealers in one stage - 50 psi increase when balls hit formation ITP 1650 psi, Min 1600 psi, Max 1650 psi, Ave 1650 psi, IR 15 B/M foam, ISDP 1050 psi, 15 min std pressure 1050 psi - left well shut in two hours opened to atmosphere through 3/4" choke.

6-8-79

Moved in and rigged up FWS swabbing unit. Ran 36 jts 1-1/4" OD 2.4# CW-55 10R EUE tbg. TE 1175.67' set @ 1174' GR. Baker Model "C" packer @ 1143' in set down position w/1 jt tail pipe. Landed tbg and nipped up well head. Started swabbing.

APPLIACTION FOR DOWNHOLE COMMINGLING
BY DUGAN PRODUCTION CORP.
Big Field #2, Big Field #5, Dinero #1,
and Molly Pitcher #2 Wells.

Case No. 6586

Exhibit No. 3a

dugan production corp.

Dugan Production Corp.
Dinero #1
1460' FNL - 810' FEL
Sec 13 T30N R14W
San Juan County, NM
Elevation 5890' GR

MORNING REPORT

- 8-11-78 Moved in and rigged up Morrow Drlg Co. Spudded 7-7/8" hole @ 8:00 a.m. Drlg to 40'. Ran 1 jt 5-1/2" OD 14# ST&C csg. TE 39.6 set @ 40' GR. Cemented to surface w/8 sx cement. Job complete 9:30 a.m. 8-10-78. WOC 10 hrs.
- 8-12-78 Depth 1430'. Drlg 4-3/4" hole w/wtr.
- 8-13-78 Depth 1580. Down 20 hrs for pump repair
- 8-14-78 TD 1770'. Prep. to run logs.
- 8-15-78 Ran Wellex IES log to TD 1770'. Rigged up csg tools. Ran 61 jts 2-7/8" OD 6.4# J-55 10R NEUE tbg for csg. TE 1768.32' set @ 1767' GR. Had good mud returns and reciprocated pipe while cementing. Cemented w/60 sx 65-35 w/12% gel w/1/4# flo cele per sx followed by 75 sx class "B" neat w/1/4# flo cele per sx. Total slury 246 cu ft. Preflushed hole w/250 gals CW-7 mud wash. Bumped plug w/2000 psi. Released press - held OK. POB 4:57 p.m. 8-14-78.
- 8-23-78 Moved in and rigged up FWS pulling unit. GO Wireline ran gamma ray correlation and collar logs. PBTD 1733'. Swabbed 2-7/8" csg down to 1350'. Perf w/1 2-1/8" glass jets per foot 1618-1628' (10 holes). Made one swab run to bottom. Well kicked off making estimated 150 MCFGPD.

709 BLOOMFIELD RD. • P. O. BOX 234 • FARMINGTON, NEW MEXICO 87401 • PHONE 505-325-0238

APPLICATION FOR DOWNHOLE COMMINGLING
BY DUGAN PRODUCTION CORP.
Big Field #2, Big Field #5, Dinero #1,
and Molly Pitcher #2 Wells.

Case No. 6586

Exhibit No. 36

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEYSUBMIT IN TO:
(Other Instructions
reverse side)TIN
10-

Budget Bureau No. 42-10144

5. LEASE DESIGNATION AND SERIAL NO.

SF 079070

6. IF LEASE, ATTACHED TO THIS

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.
Use "APPLICATION FOR PERMIT—" for such proposals.)1. WELL
OIL WELL ☐ GAS WELL ☒ OTHER ☐

2. NAME OF OPERATOR

Dugan Production Corp.

3. ADDRESS OF OPERATOR

Box 234, Farmington, NM 87401

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*
See also space 17 below.)
At surface

1460' FNL - 810' FEL

14. PERMIT NO.

15. ELEVATIONS (Show whether DF, RT, CR, etc.)

5890' GR

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

Dinero

9. WELL NO.

1

10. FIELD AND POOL, OR WILDCAT

Wildcat PC

11. SEC., T., R., N., OR BLK. AND
SURVEY OR AREA

Sec 13 T30N R14W

12. COUNTY OR PARISH

San Juan

13. STATE

NM

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data:

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF

FRACTURE TREAT

SHOOT OR ACIDIZE

REPAIR WELL

(Other)

FULL OR ALTER CASING

MULTIPLE COMPLETE

ABANDON*

CHANGE PLANS

SUBSEQUENT REPORT OF:

WATER SHUT-OFF

FRACTURE TREATMENT

SHOOTING OR ACIDIZING

(Other)

REPAIRING WELL

ALTERING CASING

ABANDONMENT*

tbg

(NOTE: Report results of multiple completion on Well
Completion or Recompletion Report and Log form.)17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any
proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones perti-
nent to this work.)*

11-17-78

Moved in and rigged up FWS swabbing unit. Ran 51 jts 1 1/2" OD.
2.75# J-55 10R 1J tbg. TE 1653.07' set @ 1651' GR. Nipped up
well head and landed tbg. Shut well in and rigged down swabbing
unit.

18. I hereby certify that the foregoing is true and correct

SIGNED

Thomas A. Dugan

TITLE

Petroleum Engineer

DATE

11-28-78

(This space for Federal or State office use)

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

APPLICATION FOR DOWNHOLE COMMINGLING
BY DUGAN PRODUCTION CORP.
Big Field #2, Big Field #5, Dinero #1,
and Molly Pitcher #2 Wells.

Case No. 6586

Exhibit No. 3b



dugan production corp.

Dugan Production Corp.
Dinero #1
1460' FNL - 810' FEL
Sec 13 T30N R14W
San Juan County, NM
Elevation 5890' GR

REMEDIAL OPERATIONS

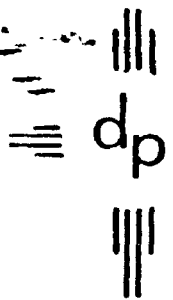
- 6-4-79 Moved in and rigged up FWS swabbing unit. Blew well down. Pulled 1-1/2" tbg. Removed well head and installed master valve for frac. Shut in. Rigged down FWS.
- 6-6-79 Foam fraced w/Newsco and Western Co w/70 quality foam. Used 25 gals adafoam, 103.5 bbls wtr and 128,800 SCF of nitrogen. Started pad - pressured up to 4000 psi - blew well down and pressured up and broke down w/wtr. Formation broke down and fraced as follows: ITP 1800 psi, Min 1700 psi, Max 1800 psi, Ave 1750 psi. Dropped 15 ball sealers in one stage - got 50 psi pressure increase when balls hit. Average IR foam 15 B/M. ISDP 1300 psi. 5 min stdg press 1200 psi. Left well shut in two hours. Opened to atmosphere through 5/8" pos choke.
- 6-7-79 Moved in and rigged up FWS swabbing unit. Well unloading water and gas. Making estimated 500 MCF. Re-ran 50 jts 1-1/2" tbg. TE 1620.59' set @ 1618'. Tagged sand @ 1628' cleaned out to 1653'. Landed tbg and nipped up well head. Put well back on production. Rigged down FWS.

709 BLOOMFIELD RD. • P. O. BOX 234 • FARMINGTON, NEW MEXICO 87401 • PHONE 505-325-0238

APPLICATION FOR DOWNHOLE COMMINGLING
BY DUGAN PRODUCTION CORP.
Big Field #2, Big Field #5, Dinero #1,
and Molly Pitcher #2 Wells.

Case No. 6586

Exhibit No. 3b



dugan production corp.

Dugan Production Corp.
Molly Pitcher #2
1590' FNL - 790' FEL
Section 14, T30N R14W
San Juan County, NM
Elevation: 5950' GR

MORNING REPORT

- 7-26-78 Moved in and rigged up Morrow Drlg. Co. Spudded 8-3/4" hole @ 9:00 a.m. Drlg to 65'. Ran 2 jts 7" OD 26# LT&C csg. TE 64.19' set @ 64' GR. Cemented to surface w/35 sx class "B" neat w/2% CaCl. POB 11:10 a.m. 7-25-78.
- 7-27-78 Depth 1133' on bottom with new bit. Drlg with water.
- 7-28-78 TD 1800'. Logs on bottom.
- 7-29-78 Rigged up csg tools. Ran 61 jts 2-7/8" OD 6.4# CW-55 10R NEUE tbg for csg. TE 1797.97' set @ 1797' GR. Had good mud returns and reciprocated pipe while cementing/ Preflushed hole w/100 gals mud sweep. Cemented w/60 sx 65-35 w/12% gel 1/1/4# cello flake per sx followed by 75 sx class "B" w/1/4# cello flake per sx. Total slury 239 cu ft. Bumped plug w/1500 psi. Released to 750 psi. Shut in. Circulated trace of cement. POB 11:55 a.m. 7-28-78.
- 8-23-79 Moved in FWS swabbing unit. GO Wireline ran Gamma Ray correlation and collar logs. PBTD 1778'. Swabbed 2-7/8" csg down to 1200'. Perf by GO Wireline 1679-1689', 1586-1589' and 1492-1497'. Swabbed well down - no indication of water entry w/very slight show gas.
- 8-31-79 Acidized well by Allied Services w/250 gals 15% reg acid w/2 gals Tretolite former. Dropped 15 ball sealers in acid - some ball action. Breakdown pressure 1750 psi - back to 750 psi @ 1-1/2 B/M. Had 200 psi increase when ball hit. Flushed w/10 bbls water. Swabbed down. Slight increase in gas - no indicated water entry.
- 6-6-79 Foam fraced w/Nowco and Western Co w/70 quality foam. Used 25 gals. adafoam, 22,000# 10-20 sand, 103.5 bbls wtr and 128,800 SCF of Nitrogen Dropped 15 ball sealers in one stage got 25 psi pressure increase when balls hit perfs. Initial frac 1750 psi - Max 1900 psi, Min 1750 psi, Ave 1850 psi. Average IR 15 B/M foam. Left well shut in one hour. Opened well to atmosphere - unloading heavy mist of water and estimated 350 MCFGPD after eight hours.

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APPLICATION FOR DOWNHOLE COMMINGLING
BY DUGAN PRODUCTION CORP.
Big Field #2, Big Field #5, Dinero #1,
and Molly Pitcher #2 Wells.

Case No. 6586

Exhibit No. 3c

Dugan Production Corp.
Molly Pitcher #2
Page 2

6-7-79 Moved in and rigged up FWS swabbing unit. Well unloading wtr and gas. Ran 52 jts 1-1/4" OD 2.4# CW-55 10R EVE tbg. TE 1683.53' set @ 1681'G. Had cross pin in bottom for swab stop. Landed tbg and nipped up well head. Well came around thru tbg. Rigged down FWS.

APPLICATION FOR DOWNHOLE COMINGLING
BY DUGAN PRODUCTION CORP.
Big Field #2, Big Field #5, Dinero #1,
and Molly Pitcher #2 Wells.

Case No. 6586

Exhibit No. 3c



Prof. 015"

BIRDWELL

Induction Electric Log

COMPANY DUGAN PRODUCTION CORPORATION

WELL BIG FIELD #2

FIELD WILDCAT

COUNTY SAN JUAN STATE NEW MEXICO

LOCATION: 790' FWL 1850' FWL
N -30

OTHER SERVICES:
NONE

SEC. 3 TWP. 30N RGE. 14W

PERMANENT DATUM GROUND LEVEL ELEV. 5662'

ELEV. K.B. N.A.

LOG MEASURED FROM G.L. 0 FT. ABOVE PERM. DATUM

D.F. N.A.

DRILLING MEASURED FROM GROUND LEVEL

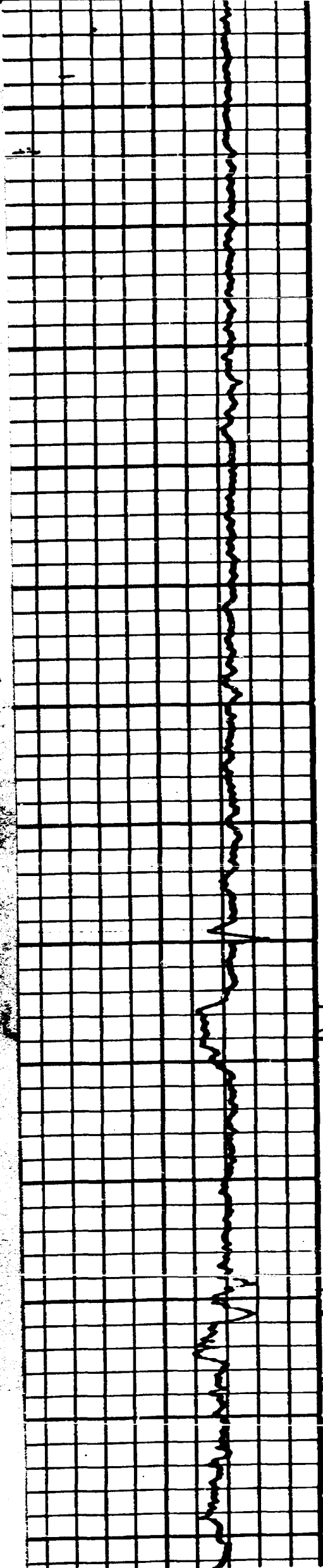
G.L. 5662'

DATE	10/16/78				
RUN NO.	ONE				
DEPTH-DRILLER	1310'				
DEPTH-LOGGER	1310'				
BTM. LOG INTER.	1305'				
TOP LOG INTER.	0'				
CASING-DRILLER	5 1/2 @ 40'	@	@	@	@
CASING-LOGGER	NOT REACHED				
BIT SIZE	4 3/4"				
TYPE FLUID IN HOLE	MUD FULL				
DENS.	VISC.	N.A.	2.8		
pH	FLUID LOSS	N.A.	50 ml	ml	ml
SOURCE OF SAMPLE	PIT				
R _m @ MEAS. TEMP.	1.0 @ 78 °F	@	°F	@	°F
R _{ml} @ MEAS. TEMP.	1.0 @ 76 °F	@	°F	@	°F
R _{mc} @ MEAS. TEMP.	.85 @ 76 °F	@	°F	@	°F
SOURCE R _{ml} R _{mc}	PRESS PRESS				
R _m @ B.H.T.	@ 8.0 °F	@	°F	@	°F
TIME SINCE CIRC.	2 HOURS				
MAX. REC. TEMP.	820 °F		°F		°F
EQUIP. LOCATION	34 2959				
RECORDED BY	MARTINEZ				
WITNESSED BY	FAGZELIUS				

APPLICATION FOR DOWNHOLE COMMINGLING
BY DUGAN PRODUCTION CORP.
Big Field #2, Big Field #5, Dinero #1
and Molly Pitcher #2 Wells.

Case No. 6586

Exhibit No. 4a



700

800

900

1000

1078

1092

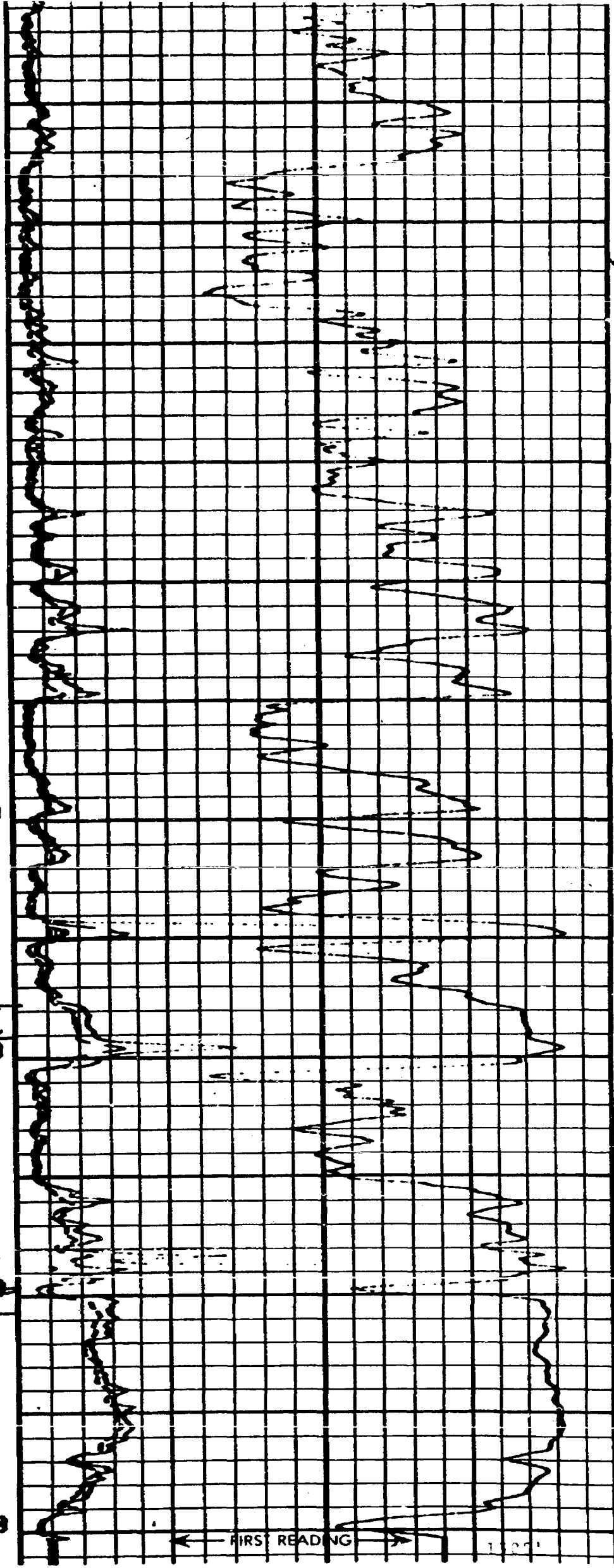
1100

1112

1200

1209

1300



← FIRST READING →

1321



INDUCTION ELECTRIC LOG

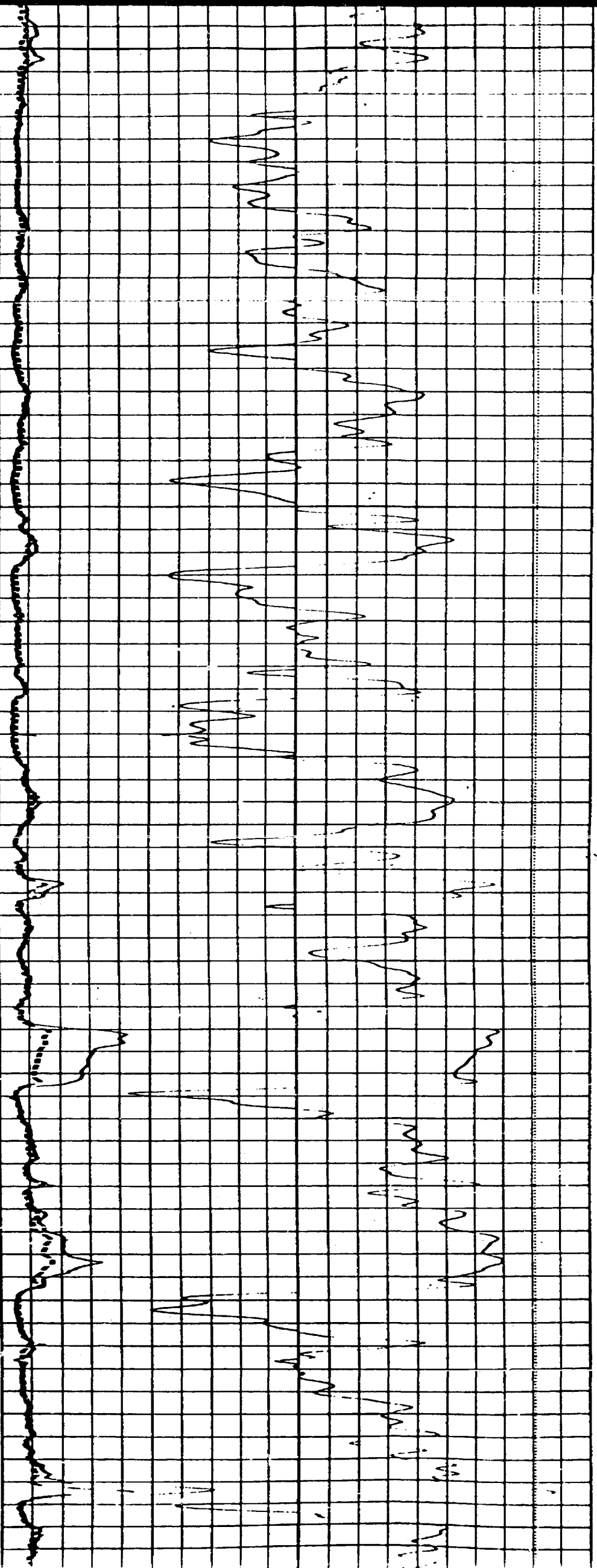
COMPANY WELL FIELD County State	COMPANY <u>DUGAN PRODUCTION CORPORATION</u>			
	WELL <u>BIG FIELD #1</u>			
	FIELD <u>BASIN DAKOTA</u>			
	COUNTY <u>SAN JUAN</u> STATE <u>NEW MEXICO</u>			
Location		Other Services:		
790' FSL & 790' FEL		CDL		
Sec. <u>10</u> Twp. <u>30N</u> Rge. <u>14 W</u>				
Permanent Datum <u>GROUND LEVEL</u> Elev. <u>6143</u>		Elev. K.B. <u>6153</u>		
Log Measured From <u>KELLY BUSHING</u> <u>10</u> Ft. Above Perm. Datum		D.F. <u>6152</u>		
Drilling Measured From <u>KELLY BUSHING</u>		G.L. <u>6143</u>		
Date	<u>3-25-79</u>			
Run No.	<u>ONE</u>			
Depth—Driller	<u>6680'</u>			
Depth—Welex	<u>6677'</u>			
Btm. Log Inter.	<u>6670'</u>			
Top Log Inter.	<u>210'</u>			
Casing—Driller	<u>8 5/8" @ 210'</u>	@	@	@
Casing—Welex	<u>210'</u>			
Bit Size	<u>7 7/8"</u>			
Type Fluid in Hole	<u>DRILLING MUD</u>			
Dens. & Visc.	<u>9.2 150</u>			
pH & Fluid Loss	<u>9.0 117 ml</u>			
Source of Sample	<u>FLOW LINE</u>			
R _m @ Meas. Temp.	<u>3.0 @ 80 °F</u>	@ °T	@ °F	@ °F
R _m @ Meas. Temp.	<u>2.8 @ 65 °F</u>	@ °F	@ °F	@ °F
R _m @ Meas. Temp.	<u>3.3 @ 65 °F</u>	@ °F	@ °F	@ °F
Source R _m P _m	<u>MEASURED</u>			
R _m @ BHT	<u>1.35 @ 200 °F</u>	@ °F	@ °F	@ °F
Time Since Circ.	<u>3 HOURS</u>			
Max. Rec. Temp	<u>200 °F @ TD</u>	°F @	°F @	°F @
Equip. & Location	<u>1893 IFARNINGTON</u>			
Recorded By	<u>E.C. Collins</u>			
Witnessed By	<u>Mr. Fagrelus</u>			

LAHOH-AA 05845

APPLICATION FOR DOWNHOLE COMMINGLING
BY DUGAN PRODUCTION CORP.
Big Field #2, Big Field #5, Dinero #1,
and Molly Pitcher #2 Wells.

Case No. 6586

Exhibit No. 41



1100

1200

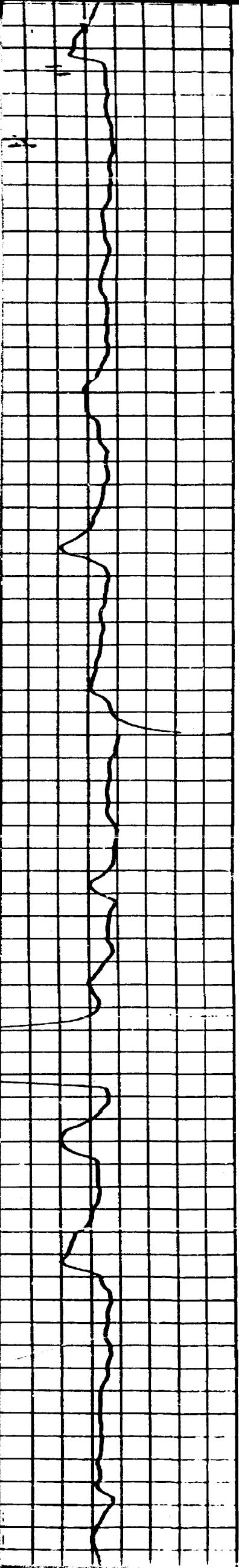
1300

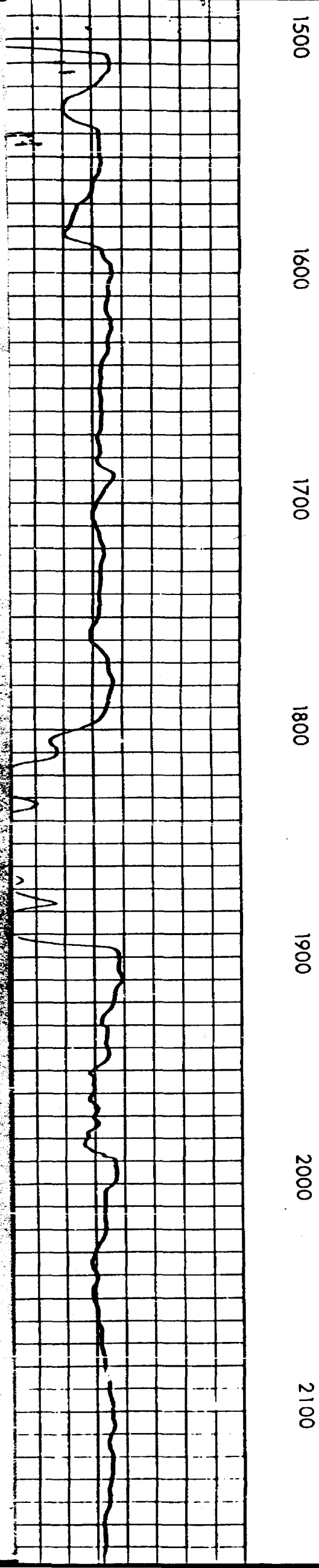
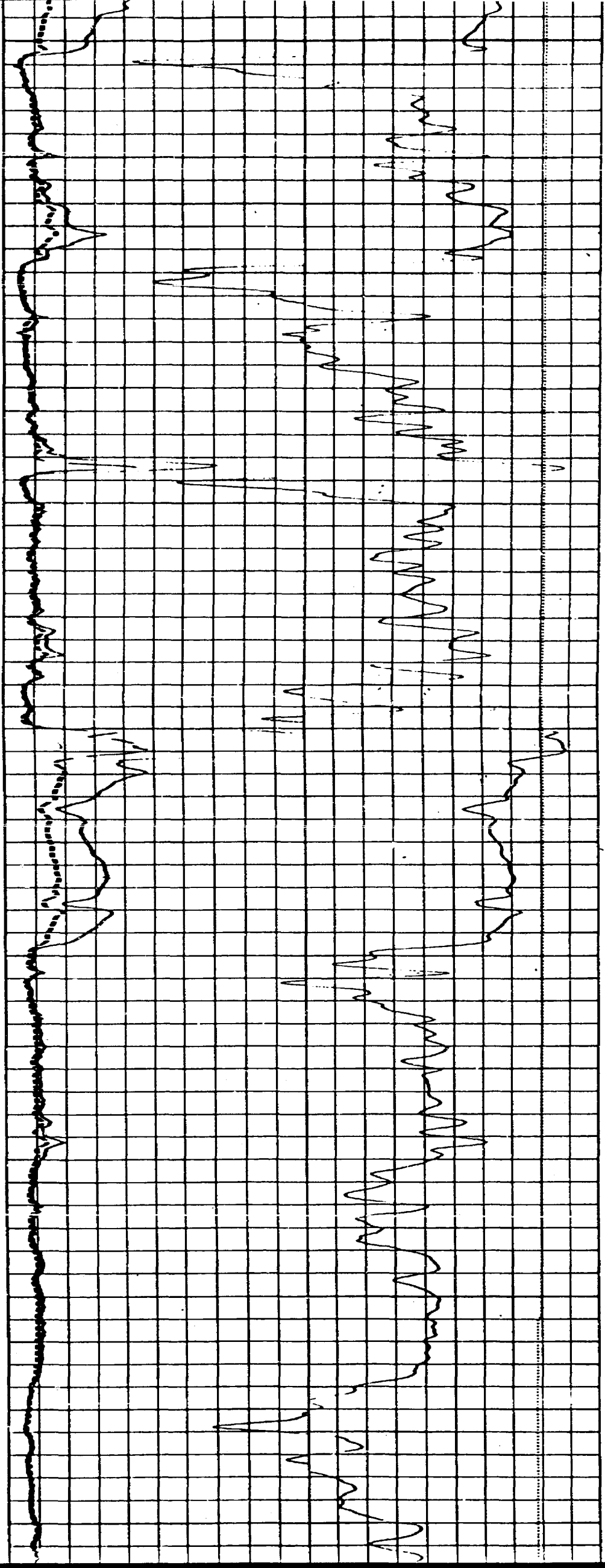
1400

1500

1600

1700







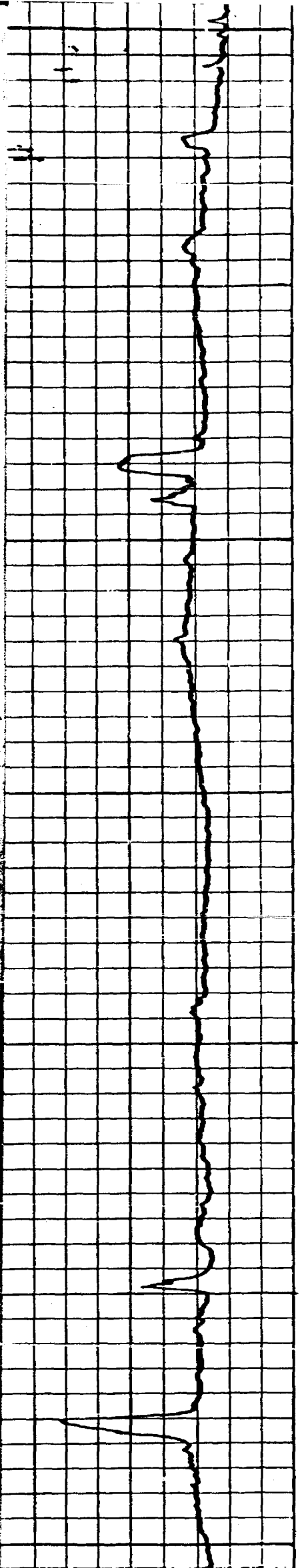
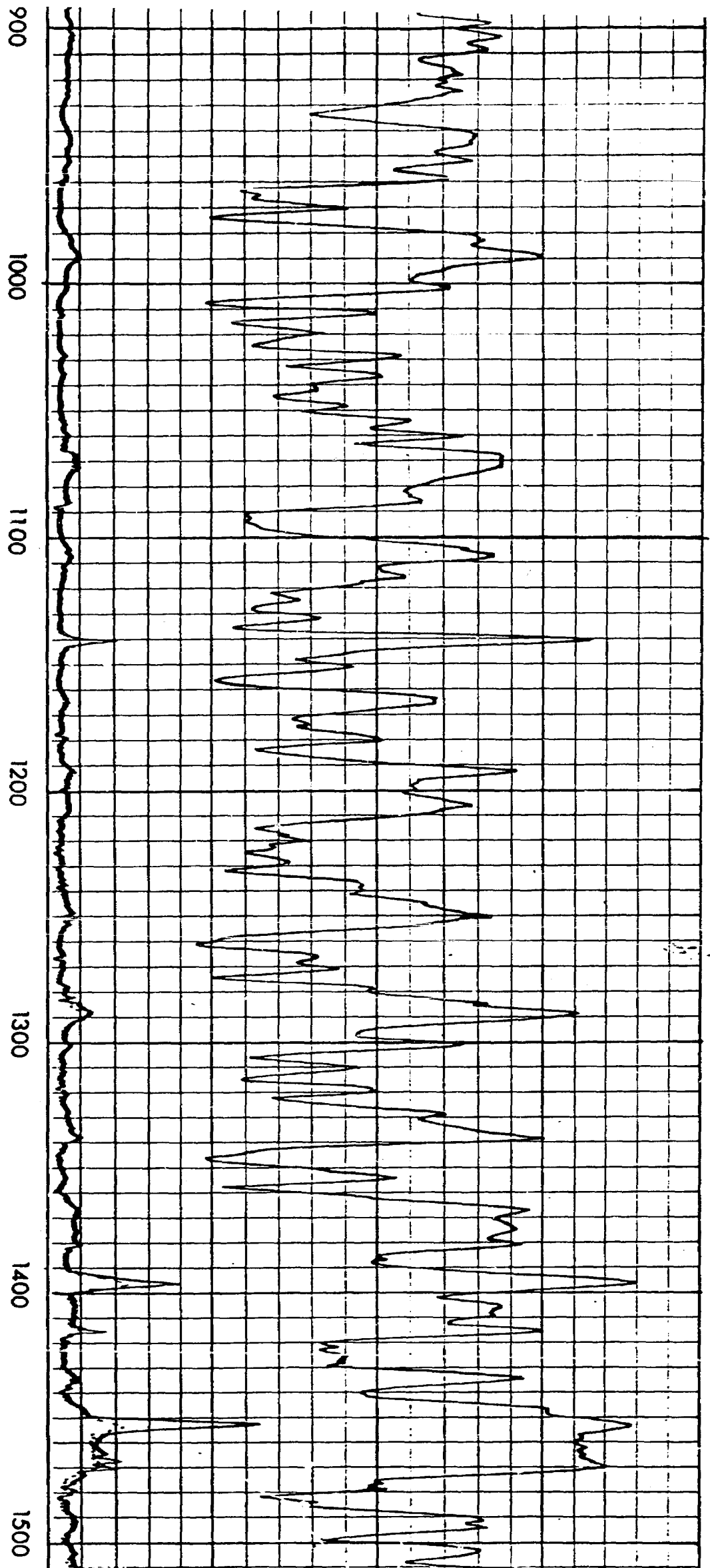
INDUCTION ELECTRIC LOG

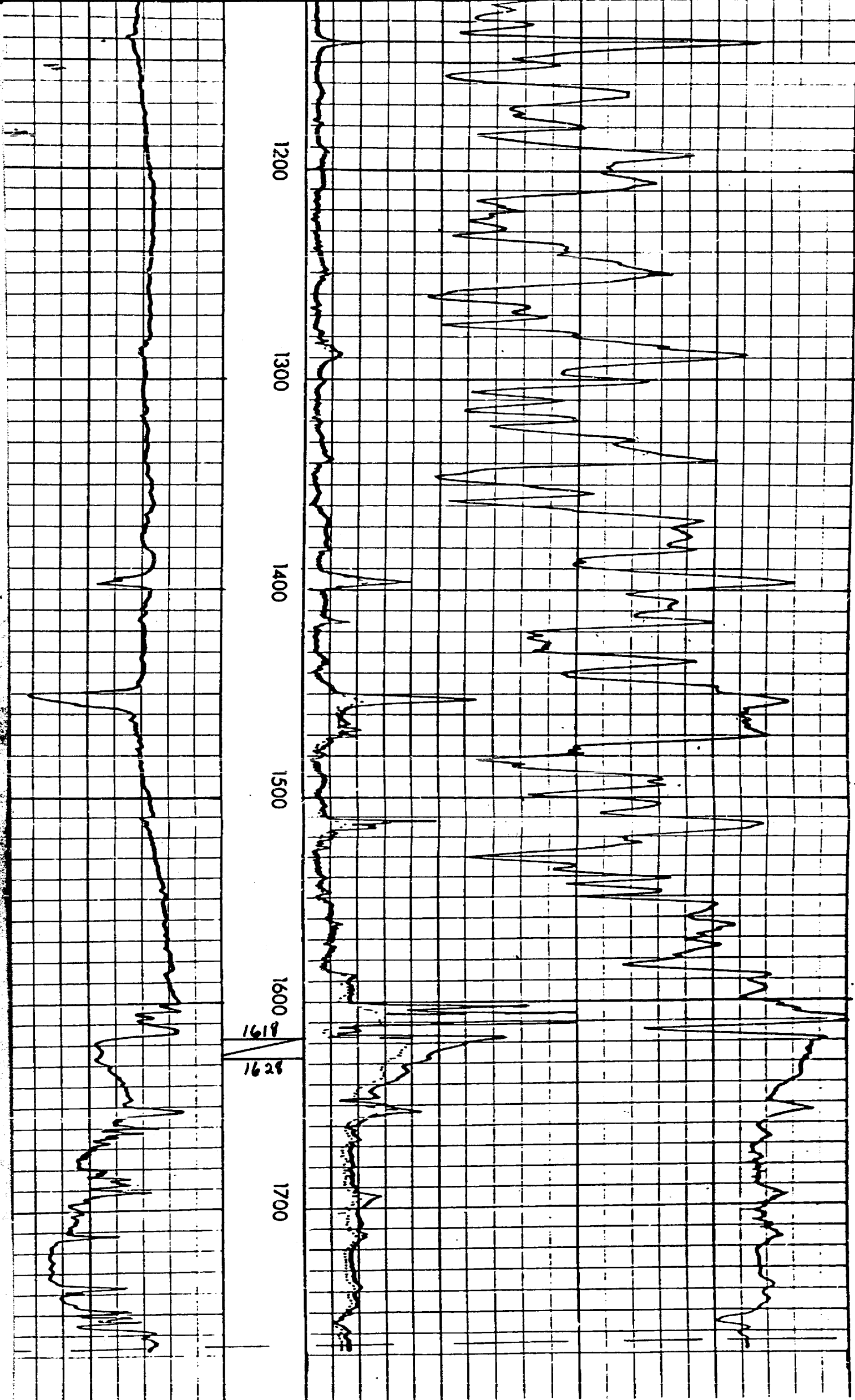
COMPANY DUGAN PRODUCTION CORPORATION WELL DINERO #1 FIELD WILDCAT County SAN JUAN State N. MEX.	COMPANY <u>DUGAN PRODUCTION CORPORATION</u>			
	WELL <u>DINERO #1</u>			
	FIELD <u>WILDCAT</u>			
	COUNTY <u>SAN JUAN</u> STATE <u>NEW MEXICO</u>			
Location		Other Services:		
1460' FNL - 810' FEL		NONE		
Sec. <u>13</u> Twp. <u>30N</u> Rge. <u>14W</u>				
Permanent Datum <u>GROUND LEVEL</u> Elev. <u>5890'</u>		Elev.: K.B. _____		
Log Measured From <u>GROUND LEVEL</u> Ft. Above Perm. Datum _____		D.F. _____		
Drilling Measured From <u>GROUND LEVEL</u>		G.L. <u>5890'</u>		
Date	8-14-78			
Run No.	ONE			
Dep't. - Driller	1770'			
Depth - Welex	1771'			
Blm. Log Inter.	1765'			
Top Log Inter.	48'			
Casing - Driller	7" @ 60'	@	@	
Casing - Welex	7" @ 48'			
Bit Size	4-3/4"			
Type Fluid in Hole	WATER BASE MUD			
Dens. & Visc.				
pH & Fluid Loss				
Source of Sample	MUD PIT			
R _m @ Meas. Temp.	4.5 @ 70 °F	@ °F	@ °F	
R _m @ Meas. Temp.	4.2 @ 70 °F	@ °F	@ °F	
R _m @ Meas. Temp.	3.5 @ 62 °F	@ °F	@ °F	
Source R _m R _u	MEASURED			
R _m @ BHT	@ °F	@ °F	@ °F	
Time Since Circ.	1 1/2 HOURS			
Max. Rec. Temp.	°F @	°F @	°F @	
Equip. & Location	9695 & FARMINGTON I			
Recorded By	P. SHIRK & J. LEEPER			
Witnessed By	K. FAGRELIUS			

APPLICATION FOR DOWNHOLE COMMINGLING
 BY DUGAN PRODUCTION CORP.
 Big Field #2, Big Field #5, Dinero #1,
 and Molly Pitcher #2 Wells.

Case No. 6586

Exhibit No. 4c







INDUCTION-ELECTRIC LOG

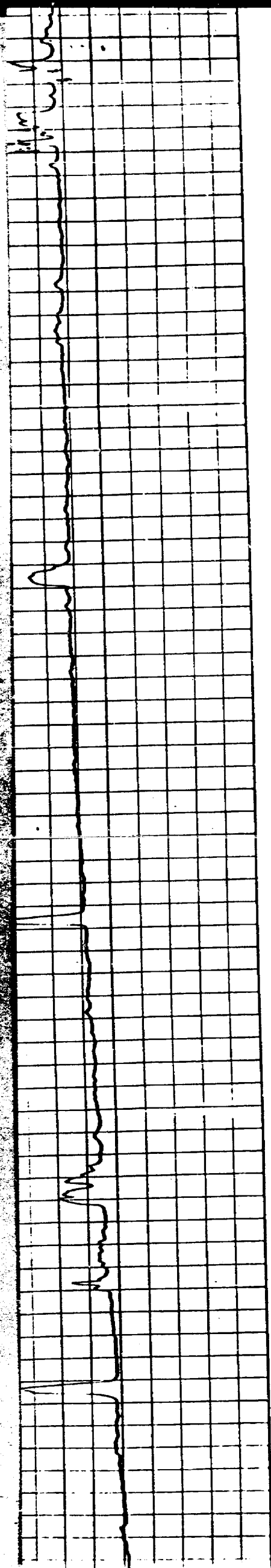
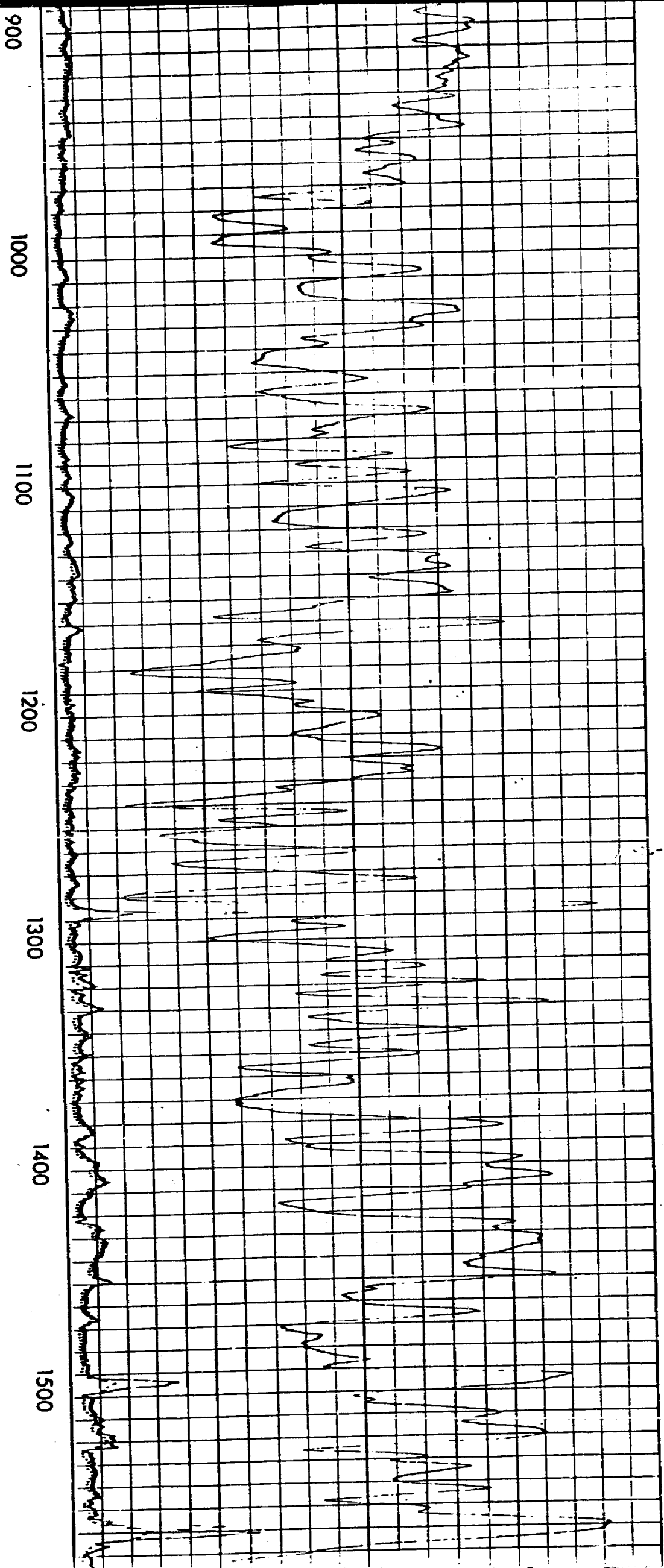
COMPANY WELL FIELD COUNTY	COMPANY	Dugan Production Corporation				
	WELL	Molly Pitcher #2				
	FIELD	Wildcat				
	COUNTY	Salt Lake	STATE	Utah		
	Location	1570' FNL 790' FLL		Other Services:	NONE	
	Sec.	14	Twp.	30N	Rge.	14W
	Permanent Datum	Ground 1.1	Elev.	5750	Elev. K.B.	
	Log Measured From	Ground 1.1	Fl. Above Perm. Datum		D.F.	
	Drilling Measured From	Ground 1.1			G.L.	5750
	Date	7-28-15				
	Run No.	ONE				
	Depth—Driller	1500'				
	Depth—Welex	1800				
	Blm. Log Inter.	1294				
	Top Log Inter.	SURF				
	Casing—Driller	5'10" @ 63				
	Casing—Welex	65				
	Bit Size	5'18" @ 360 4 3/4" ID				
	Type Fluid in Hole	Fresh Water				
	Dens. Visc.	— —				
	pH Fluid Loss	— —				
	Source of Sample	Mud P.T.				
	R _m @ Meas. Temp.	6.0 @ 66°F				
	R _m @ Meas. Temp.	6.0 @ 74°F				
	R _m @ Meas. Temp.	5.0 @ 72°F				
	Source R _m R _{na}	Alcas. W. 4				
	R _m @ BHT	@ °F				
	Time Since Circ	1 HOUR				
	Max. Rec. Temp	°F @ JLT				
	Equip. Location	964511-11111111				
	Recorded By	P. SHIRK & C. R. S. D.				
	Witnessed By	C. F. R. K. S.				

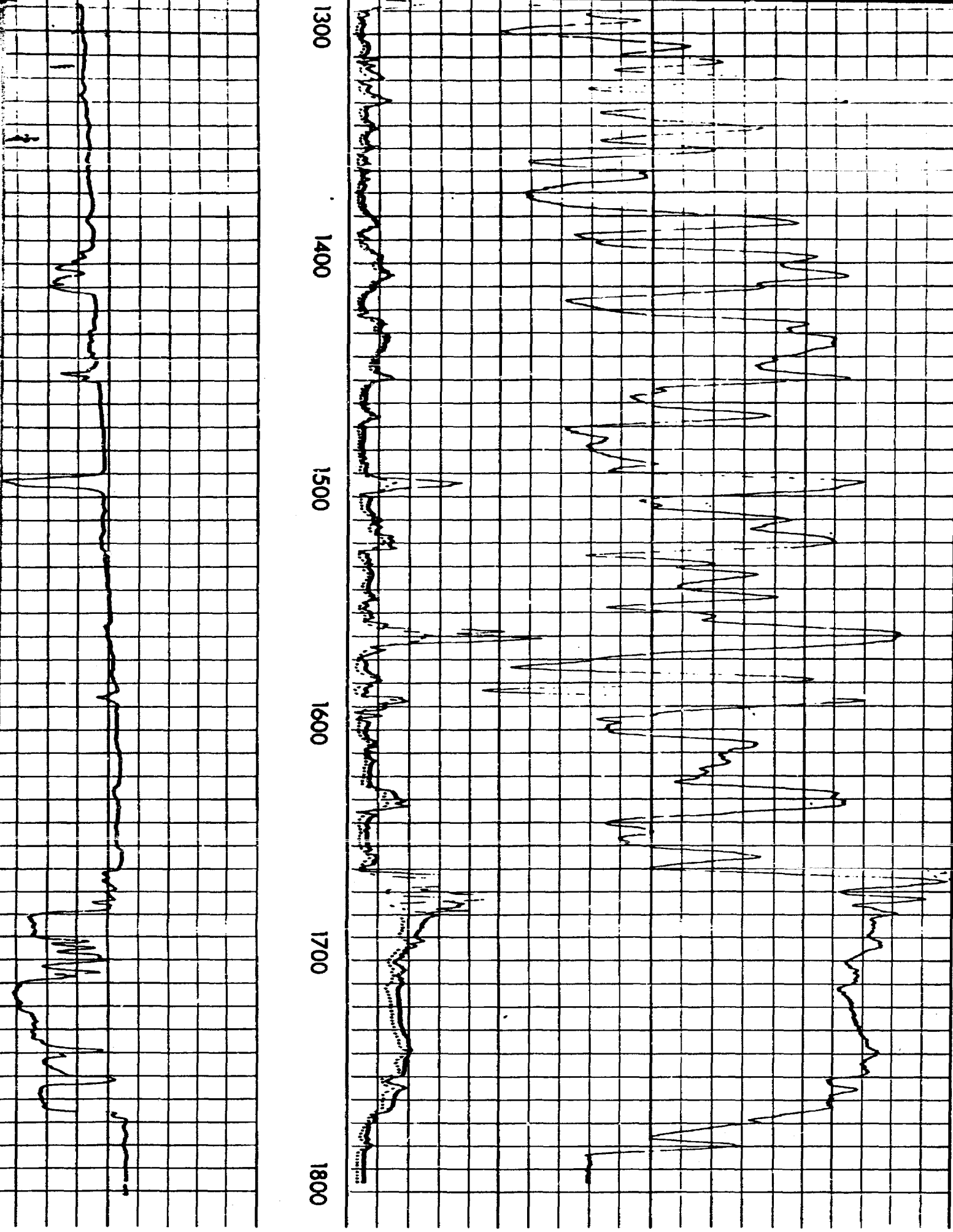
LAHOH-AA.05845

APPLICATION FOR DOWNHOLE COMMINGLING
BY DUGAN PRODUCTION CORP.
Big Field #2, Big Field #5, Dinero #1,
and Molly Pitcher #2 Wells.

Case No. 6586

Exhibit No. 46





5" = 100'

CONDUCTIVITY MILLIMHOS/M		
400	200	0
	1000	400
POTENTIAL MILLIVOLTS	RESISTIVITY OHMS M ² /M	

6	5	4	*	2	1517 1 5292
7	8	9	10 *	11	12 2829
18	17	16	15	14 *	13 637 *
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

Township 30 North, Range 14 West, N.M.P.M.

1978 PRODUCTION

Conner Fruitland Pool —

San Juan Undesignated Pictured Cliffs Pool —

Twin Mounds Pictured Cliffs Pool —

Dedicated Acreage —

Big Field #2 Well *

Big Field #5 Well *

Dinero #1 Well *

Molly Pitcher #2 Well *

APPLICATION FOR DOWNHOLE COMMINGLING
BY DUGAN PRODUCTION CORP.
Big Field #2, Big Field #5, Dinero #1,
and Molly Pitcher #2 Wells

Case No. 6586

Exhibit No. 2



dugan production corp.

Dugan Production Corp.
Big Field #2

MORNING REPORT

- 10-14-78 Moved in and rigged up Morrow Drlg Co. Spudded 7-7/8" hole @ 11:00 a.m. Drlg to 65'. Ran 2 jts 5-1/2" OD 14# ST&C csg. TE 63.64' set @ 65' GR. Cemented by Woodco. Cemented w/35 sx. Good cement to surface. Job complete @ 2:30 p.m. 10-13-78.
- 10-15-78 Depth 500'. Drlg 4-3/4" hole w/wtr.
- 10-16-78 Depth 1020'. Drlg 4-3/4" hole w/wtr.
- 10-17-78 Drlg 4-3/4" hole to 1305' TD. Moved in and rigged up Birdwell Logging Co. and ran IES log to TD.
- 10-18-78 TD 1310'. Ran 42 jts 2-7/8" OD 6.4# CW-55 10R reg tbg for csg. TE 1297.50' set @ 1297' GR. Preflushed hole w/100 gals mud sweep. Reciprocated pipe and had good circulation while cementing. Cemented w/50 sx 65-35 w/12% gel w/1/4# cello flake per sx followed by 75 sx class "B" w/1/4# cello flake per sx. Total slurry 214 cu ft. Bumped plug w/1500 psi, released to 750 psi. Shut in. POB 12:45 p.m. 10-17-78.
- 10-27-78 Rigged up Drake Well Service swabbing unit and Blue Jet perforators. PBTD 1275'. Ran GR, collar locator and Neutron correlation log. Swabbed hole down to approx 1000'. Perforated 1198-1208' zone on correlation log, 10 holes 1 spf w/2-1/8" bi wire glass jets. Swabbed well dry on 1st run, waited 15 mins. swabbed dry hole, no sign of gas or water entry.. Loaded hole with 4 Bbl water, fluid level @ 700'. Perforated 1078-1092 zone on correlation log, 14 holes 1 spf w/2-1/8" bi wire glass jets. Perforated 1068-1078 zone on correlation log, 10 holes, 1 spf w/2-1/8" bi wire glass jets. Swabbed hole, recovered load water and coal. Swabbed hole dry, waited 15 min. swabbed again, no water, slight amount of gas ahead of swab.

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APPLICATION FOR DOWNHOLE COMMINGLING
BY DUGAN PRODUCTION CORP.
Big Field #2, Big Field #5, Dinero #1,
and Molly Pitcher #2 Wells.

Case No. 6586

Exhibit No. 3a

10-28-78

Rigged up Allied Services, Pumped 125 gal 15% HCl 1-1/2 B/M, dropped 11 ball sealers, pumped 125 gal 15% HCl @ 1-1/2 B/M, dropped 11 ball sealers, displaced acid w/7 Bbl water @ 1-1/2 B/M. Breakdown pressure of 1700 psi occurred while pumping 4th bbl of acid, estimated 300 ft of water in hole. Ball sealer action occurred during 2nd bbl water displaced, pressure to 1100 psi. Displacement pressure 700-500 psi. Swabbed hole dry w/2 runs, no gas ahead of swab, waited 15 min swabbed again swabbed 1/4 bbl acid tasting water, waited 15 min, swabbed again swabbed 1/4 bbl acid tasting water. Shut well in.

6-6-79

Foam fraced well by Nowsco and Western Co w/70 quality foam. Used 18 gals adafoam, 13,000# 10-20 sand, 71.5 Bbls wtr., 71,600 SCF of nitrogen (Had to cut frac job short of planned job due to Western Co. blender failure). Dropped 20 ball sealers in one stage - 50 psi increase when balls hit formation ITP 1650 psi, Min 1600 psi, Max 1650 psi, Ave 1650 psi, IR 15 B/M foam, ISDP 1050 psi, 15 min std pressure 1050 psi - left well shut in two hours opened to atmosphere through 3/4" choke.

6-8-79

Moved in and rigged up FWS swabbing unit. Ran 36 jts 1-1/4" OD 2.4# CW-55 10R EUE tbg. TE 1175.67' set @ 1174' GR. Baker Model "C" packer @ 1143' in set down position w/1 jt tail pipe. Landed tbg and nipped up well head. Started swabbing.

APPLIACTION FOR DOWNHOLE COMMINGLING
BY DUGAN PRODUCTION CORP.
Big Field #2, Big Field #5, Dinero #1,
and Molly Pitcher #2 Wells.

Case No. 6586

Exhibit No. 3a

dugan production corp.

Dugan Production Corp.
Dinero #1
1460' FNL - 810' FEL
Sec 13 T30N R14W
San Juan County, NM
Elevation 5890' GR

MORNING REPORT

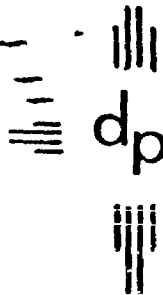
- 8-11-78 Moved in and rigged up Morrow Drlg Co. Spudded 7-7/8" hole @ 8:00 a.m. Drlg to 40'. Ran 1 jt 5-1/2" OD 14# ST&C csg. TE 39.6 set @ 40' GR. Cemented to surface w/8 sx cement. Job complete 9:30 a.m. 8-10-78. WOC 10 hrs.
- 8-12-78 Depth 1430'. Drlg 4-3/4" hole w/wtr.
- 8-13-78 Depth 1580. Down 20 hrs for pump repair
- 8-14-78 TD 1770'. Prep. to run logs.
- 8-15-78 Ran Welex IES log to TD 1770'. Rigged up csg tools. Ran 61 jts 2-7/8" OD 6.4# J-55 10R NEUE tbg for csg. TE 1768.32' set @ 1767' GR. Had good mud returns and reciprocated pipe while cementing. Cemented w/60 sx 65-35 w/12% gel w/1/4# flo cele per sx followed by 75 sx class "B" neat w/1/4# flo cele per sx. Total slury 246 cu ft. Preflushed hole w/250 gals CW-7 mud wash. Bumped plug w/2000 psi. Released press - held OK. POB 4:57 p.m. 8-14-78.
- 8-23-78 Moved in and rigged up FWS pulling unit. GO Wireline ran gamma ray correlation and collar logs. PBTD 1733'. Swabbed 2-7/8" csg down to 1350'. Perf w/1 2-1/8" glass jets per foot 1618-1628' (10 holes). Made one swab run to bottom. Well kicked off making estimated 150 MCFGPD.

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APPLICATION FOR DOWNHOLE COMMINGLING
BY DUGAN PRODUCTION CORP.
Big Field #2, Big Field #5, Dinero #1,
and Molly Pitcher #2 Wells.

Case No. 6586

Exhibit No. 3b



dugan production corp.

Dugan Production Corp.
Dinero #1
1460' FNL - 810' FEL
Sec 13 T30N R14W
San Juan County, NM
Elevation 5890' GR

REMEDIAL OPERATIONS

- 6-4-79 Moved in and rigged up FWS swabbing unit. Blew well down. Pulled 1-1/2" tbg. Removed well head and installed master valve for frac. Shut in. Rigged down FWS.
- 6-6-79 Foam fraced w/Newsco and Western Co w/70 quality foam. Used 25 gals adafoam, 103.5 bbls wtr and 128,800 SCF of nitrogen. Started pad - pressured up to 4000 psi - blew well down and pressured up and broke down w/wtr. Formation broke down and fraced as follows: ITP 1800 psi, Min 1700 psi, Max 1800 psi, Ave 1750 psi. Dropped 15 ball sealers in one stage - got 50 psi pressure increase when balls hit. Average IR foam 15 B/M. ISDP 1300 psi. 5 min stdg press 1200 psi. Left well shut in two hours. Opened to atmosphere through 5/8" pos choke.
- 6-7-79 Moved in and rigged up FWS swabbing unit. Well unloading water and gas. Making estimated 500 MCF. Re-ran 50 jts 1-1/2" tbg. TE 1620.59' set @ 1618'. Tagged sand @ 1628' cleaned out to 1653'. Landed tbg and nipped up well head. Put well back on production. Rigged down FWS.

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APPLICATION FOR DOWNHOLE COMMINGLING
BY DUGAN PRODUCTION CORP.
Big Field #2, Big Field #5, Dinero #1,
and Molly Pitcher #2 Wells.

Case No. 6586

Exhibit No. 31



dugan production corp.

Dugan Production Corp.
Molly Pitcher #2
1590' FNL - 790' FEL
Section 14, T30N R14W
San Juan County, NM
Elevation: 5950' GR

MORNING REPORT

- 7-26-78 Moved in and rigged up Morrow Drlg. Co. Spudded 8-3/4" hole @ 9:00 a.m. Drlg to 65'. Ran 2 jts 7" OD 26# LT&C csg. TE 64.19' set @ 64' GR. Cemented to surface w/35 sx class "B" neat w/2% CaCl. POB 11:10 a.m. 7-25-78.
- 7-27-78 Depth 1133' on bottom with new bit. Drlg with water.
- 7-28-78 TD 1800'. Logs on bottom.
- 7-29-78 Rigged up csg tools. Ran 61 jts 2-7/8" OD 6.4# CW-55 10R NEUE tbq for csg. TE 1797.97' set @ 1797' GR. Had good mud returns and reciprocated pipe while cementing/ Preflushed hole w/100 gals mud sweep. Cemented w/60 sx 65-35 w/12% gel 1/1/4# cello flake per sx followed by 75 sx class "B" w/1/4# cello flake per sx. Total slury 239 cu ft. Bumped plug w/1500 psi. Released to 750 psi. Shut in. Circulated trace of cement. POB 11:55 a.m. 7-28-78.
- 8-23-79 Moved in FWS swabbing unit. GO Wireline ran Gamma Ray correlation and collar logs. PBD 1778'. Swabbed 2-7/8" csg down to 1200'. Perf by GO Wireline 1679-1689', 1586-1589' and 1492-1497'. Swabbed well down - no indication of water entry w/very slight show gas.
- 8-31-79 Acidized well by Allied Services w/250 gals 15% reg acid w/2 gals Tretolite former. Dropped 15 ball sealers in acid - some ball action. Breakdown pressure 1750 psi - back to 750 psi @ 1-1/2 B/M. Had 200 psi increase when ball hit. Flushed w/10 bbls water. Swabbed down. Slight increase in gas - no indicated water entry.
- 6-6-79 Foam fraced w/Nowco and Western Co w/70 quality foam. Used 25 gals. adafoam, 22,000# 10-20 sand, 103.5 bbls wtr and 128,800 SCF of Nitrogen Dropped 15 ball sealers in one stage got 25 psi pressure increase when balls hit perfs. Initial frac 1750 psi - Max 1900 psi, Min 1750 psi, Ave 1850 psi. Average IR 15 B/M foam. Left well shut in one hour. Opened well to atmosphere - unloading heavy mist of water and estimated 350 MCFGPD after eight hours.

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APPLICATION FOR DOWNHOLE COMMINGLING
BY DUGAN PRODUCTION CORP.
Big Field #2, Big Field #5, Dinero #1,
and Molly Pitcher #2 Wells.

Case No. 6586

Exhibit No. 3c

Dugan Production Corp.
Molly Pitcher #2
Page 2

6-7-79 Moved in and rigged up FWS swabbing unit. Well unloading wtr and gas. Ran 52 jts 1-1/4" OD 2.4# CW-55 10R EUE tbg. TE 1683.53' set @ 1681'GR Had cross pin in bottom for swab stop. Landed tbg and nipped up well head. Well came around thru tbg. Rigged down FWS.

APPLICATION FOR DOWNHOLE COMMINGLING
BY DUGAN PRODUCTION CORP.
Big Field #2, Big Field #5, Dinero #1,
and Molly Pitcher #2 Wells.

Case No. 6586

Exhibit No. 3c



Ref. 015"

Induction Electric Log

COMPANY DUGAN PRODUCTION CORPORATION

WELL BIG FIELD #2

FIELD WILDCAT

COUNTY SAN JUAN STATE NEW MEXICO

LOCATION: 790' FWL 1850' FWL
N -30
SEC. 3 TWP. 30N RGE. 14W

OTHER SERVICES:
NONE

PERMANENT DATUM GROUND LEVEL ELEV. 5662'
LOG MEASURED FROM G.L. 0 FT. ABOVE PERM. DATUM
DRILLING MEASURED FROM GROUND LEVEL

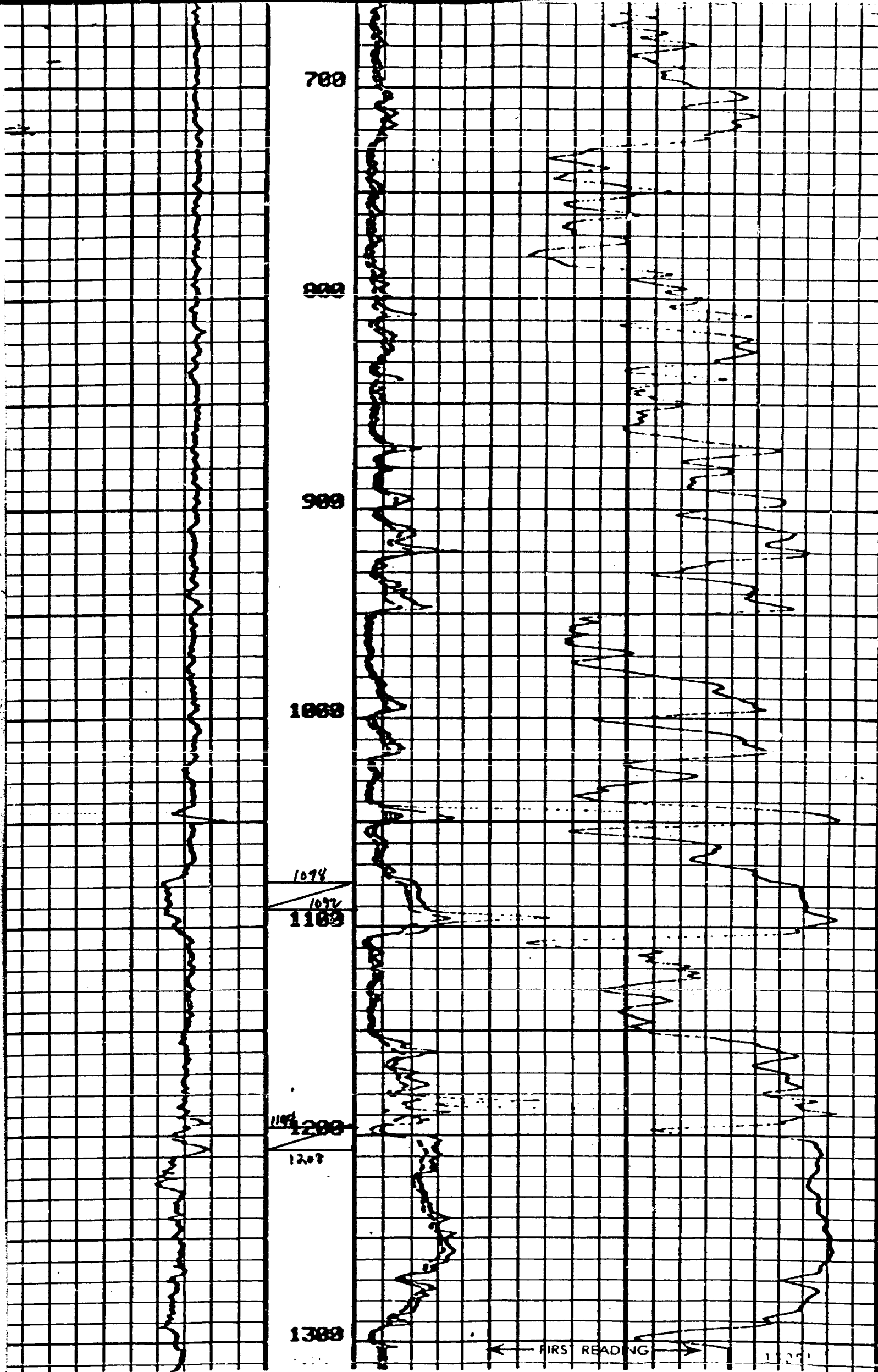
ELEV. K.B. N.A.
D.F. N.A.
G.L. 5662'

DATE	10/16/78				
RUN NO.	ONE				
DEPTH-DRILLER	1310'				
DEPTH-LOGGER	1310'				
BTM. LOG INTER.	1305'				
TOP LOG INTER.	0'				
CASING-DRILLER	5 1/2 @ 40'	@	@	@	@
CASING-LOGGER	NOT REACHED				
BIT SIZE	4 3/4"				
TYPE FLUID IN HOLE	MUD FULL				
DENS.	2.8				
VISC.	N.A.				
pH	50 ml	ml	ml	ml	ml
FLUID LOSS	N.A.				
SOURCE OF SAMPLE	PIT				
R _m @MEAS.TEMP.	1.0 @ 78 °F	@ °F	@ °F	@ °F	@ °F
R _{mf} @MEAS.TEMP.	1.0 @ 76 °F	@ °F	@ °F	@ °F	@ °F
R _{mc} @MEAS.TEMP.	.85 @ 76 °F	@ °F	@ °F	@ °F	@ °F
SOURCE R _{mf} R _{mc}	PRESS PRESS				
R _m @ B.H.T.	@ 8.0 °F	@ °F	@ °F	@ °F	@ °F
TIME SINCE CIRC.	2 HOURS				
MAX. REC. TEMP.	820 °F	°F	°F	°F	°F
EQUIP. LOCATION	34 2959				
RECORDED BY	MARTINEZ				
WITNESSED BY	FAGZELIUS				

APPLICATION FOR DOWNHOLE COMMINGLING
BY DUGAN PRODUCTION CORP.
Big Field #2, Big Field #5, Dinero #1
and Molly Pitcher #2 Wells.

Case No. 6586

Exhibit No. 4a





INDUCTION-ELECTRIC LOG

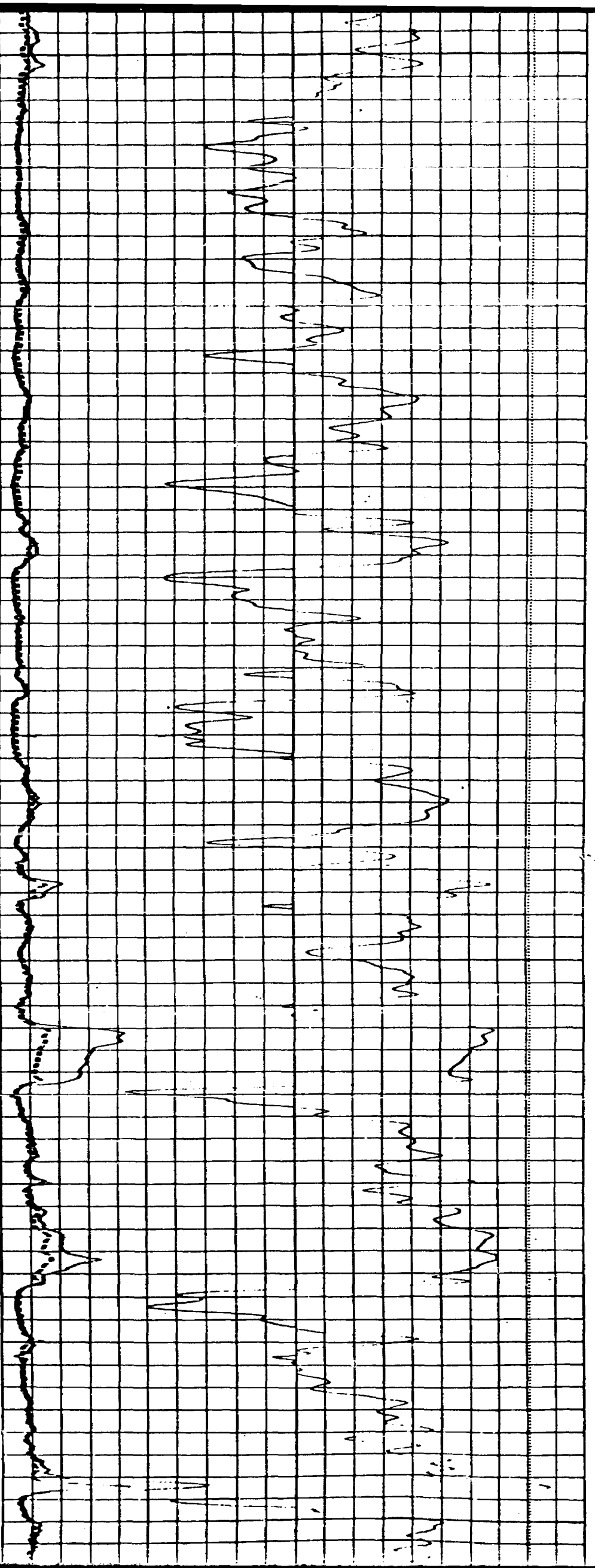
COMPANY	WELL	FIELD	State	COMPANY <u>DUGAN PRODUCTION CORPORATION</u>			
				WELL <u>BIG FIELD #1</u>			
				FIELD <u>BASIN DAKOTA</u>			
				COUNTY <u>SAN JUAN</u> STATE <u>NEW MEXICO</u>			
Location			Other Services				
790' FSL & 790' FEL			CDL				
Sec. <u>10</u> Twp. <u>30N</u> Rge. <u>14 W</u>							
Permanent Datum <u>GROUND LEVEL</u> Elev. <u>6143</u>			Elev. K.B. <u>6153</u>				
Log Measured From <u>KELLY BUSHING</u> <u>10</u> Ft. Above Perm. Datum			D.F. <u>6152</u>				
Drilling Measured From <u>KELLY BUSHING</u>			G.L. <u>6143</u>				
Date	<u>3-25-79</u>						
Run No.	<u>ONE</u>						
Depth—Driller	<u>6680'</u>						
Depth—Welex	<u>6677'</u>						
Btm. Log Inter.	<u>6670'</u>						
Top Log Inter.	<u>210'</u>						
Casing—Driller	<u>8 5/8" @ 210'</u>	@		@		@	
Casing—Welex	<u>2 10'</u>						
Bit Size	<u>7 7/8"</u>						
Type Fluid in Hole	<u>DRILLING MUD</u>						
Dens. & Visc.	<u>9.2 150</u>						
pH & Fluid Loss	<u>9.0 117 ml</u>		ml		ml	ml	
Source of Sample	<u>FLOW LINE</u>						
R _m @ Meas. Temp.	<u>3.0 @ 80°F</u>	@	°F	@	°F	@ °F	
R _m @ Meas. Temp.	<u>2.8 @ 65°F</u>	@	°F	@	°F	@ °F	
R _m @ Meas. Temp.	<u>3.3 @ 65°F</u>	@	°F	@	°F	@ °F	
Source R _m R _h	<u>MEASURED</u>						
R _m @ BHT	<u>1.35 @ 200°F</u>	@	°F	@	°F	@ °F	
Time Since Circ.	<u>3 HOURS</u>						
Max. Rec. Temp.	<u>200°F @ TD</u>	°F @		°F @		°F @	
Equip. & Location	<u>1893 IFARNINGTON</u>						
Recorded By	<u>E.C. Collins</u>						
Witnessed By	<u>Mr. Fagrellius</u>						

LAHOH—AA 05845

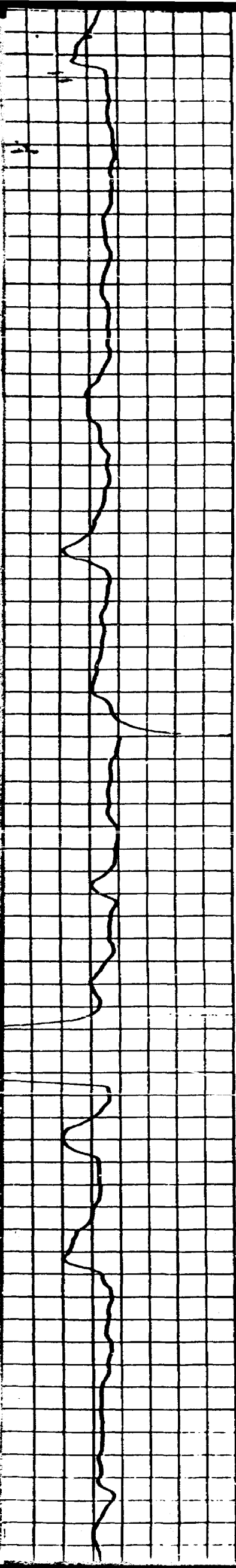
APPLICATION FOR DOWNHOLE COMMINGLING
BY DUGAN PRODUCTION CORP.
Big Field #2, Big Field #5, Dinero #1,
and Molly Pitcher #2 Wells.

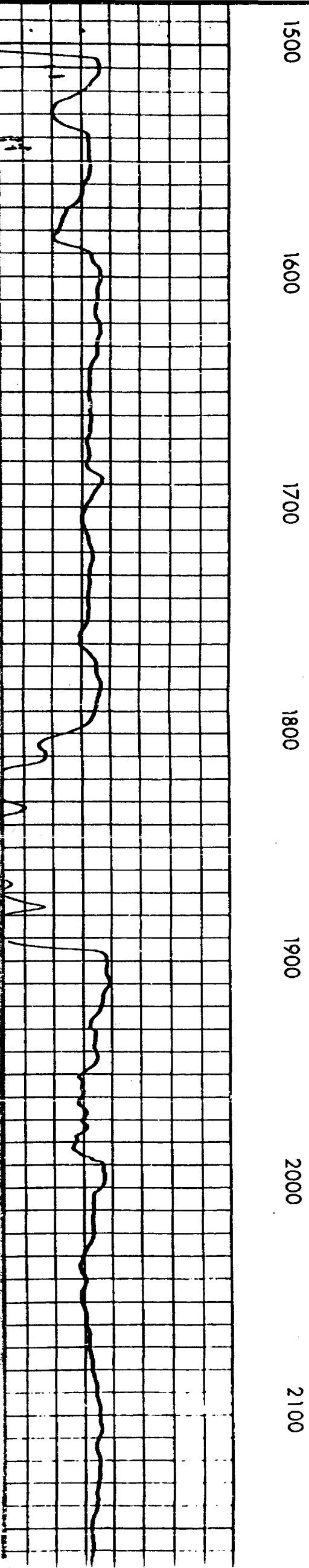
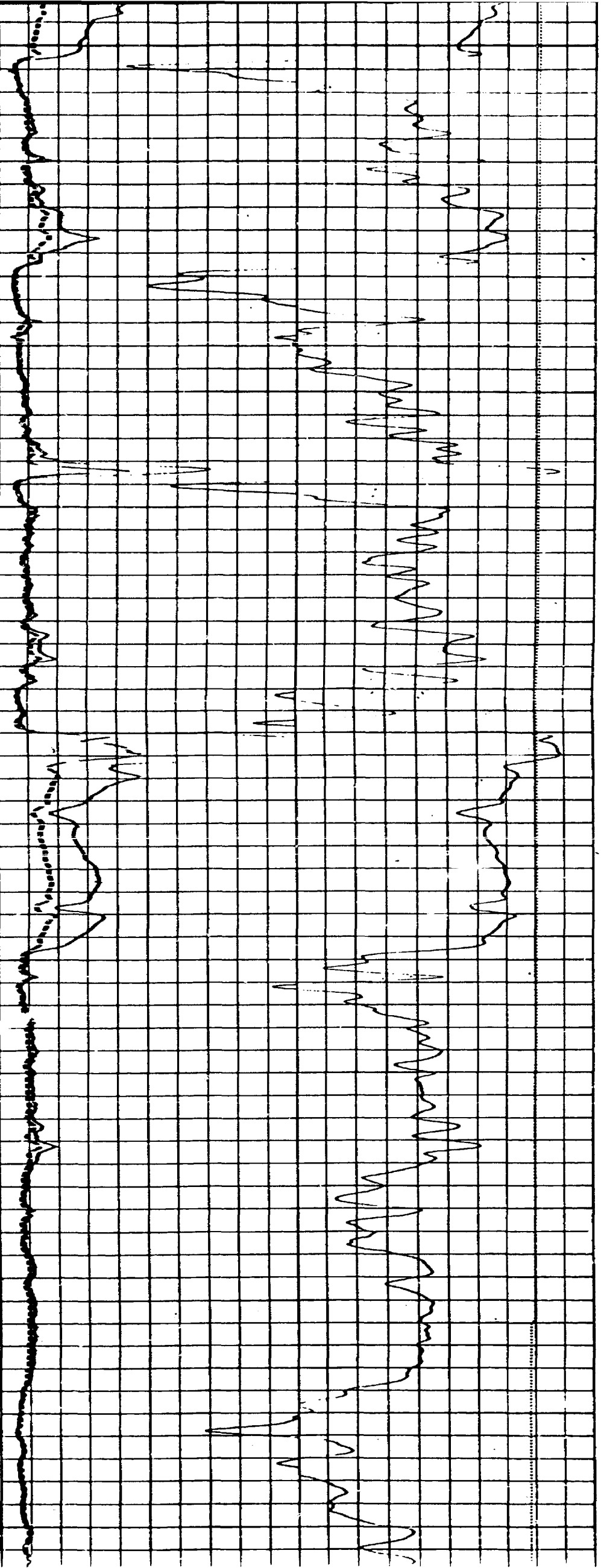
Case No. 6586

Exhibit No. 46



1100 1200 1300 1400 1500 1600 1700







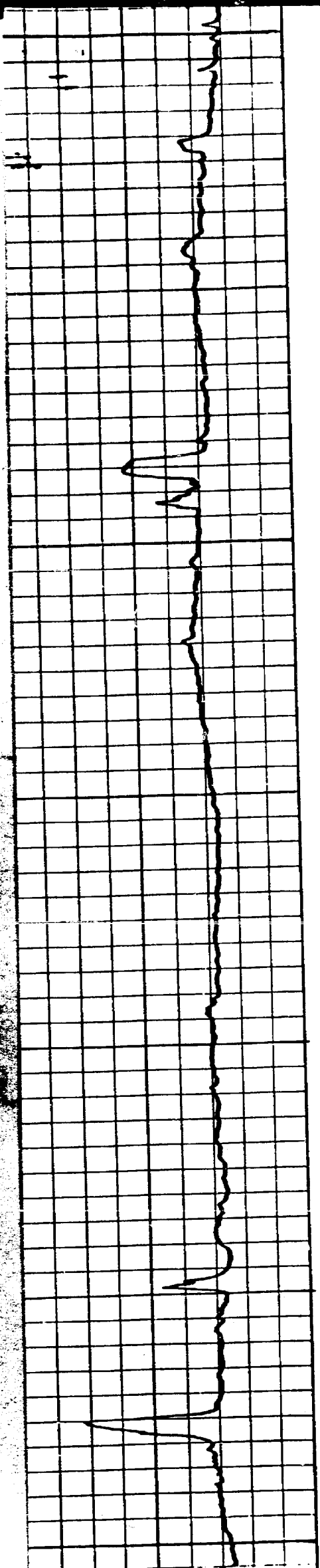
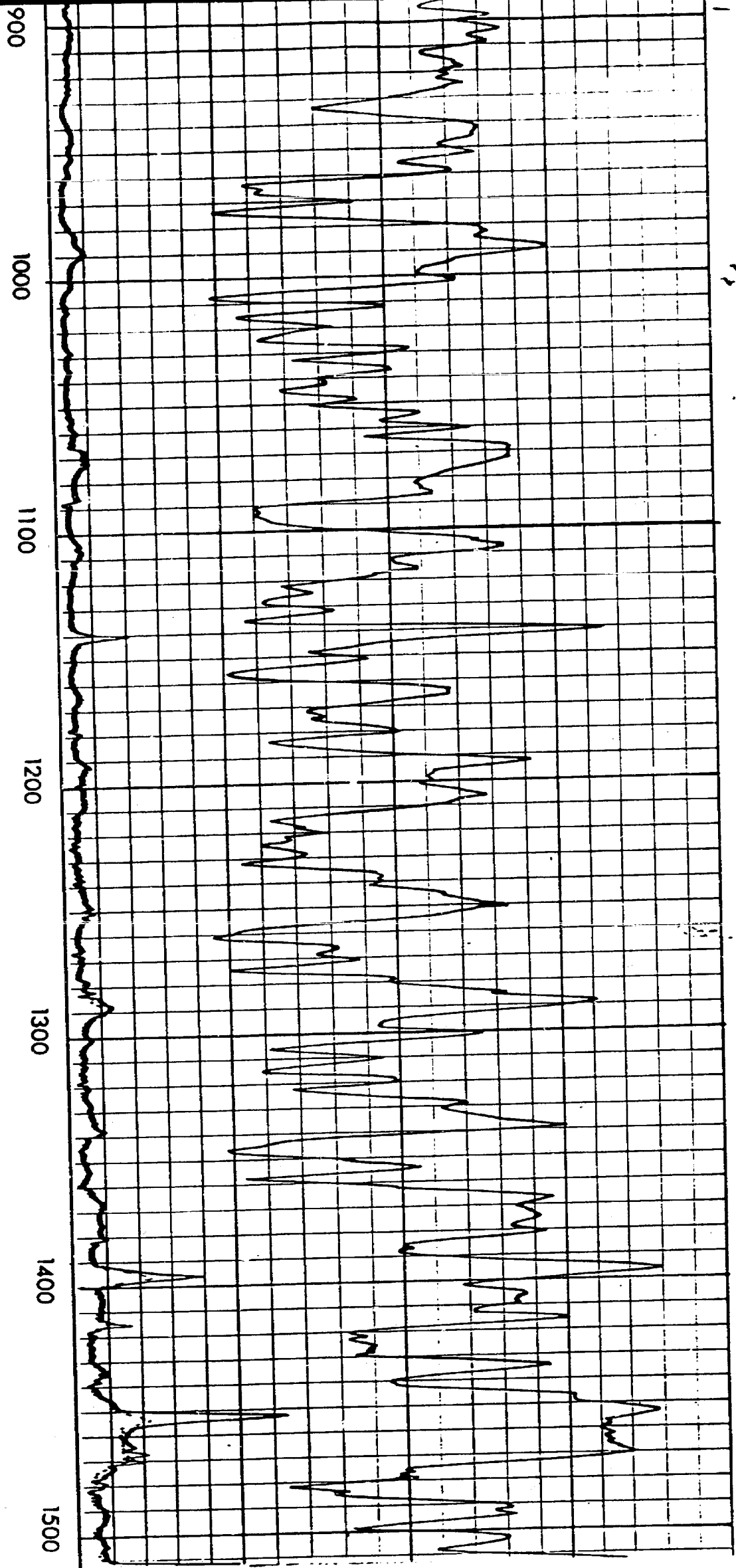
INDUCTION ELECTRIC LOG

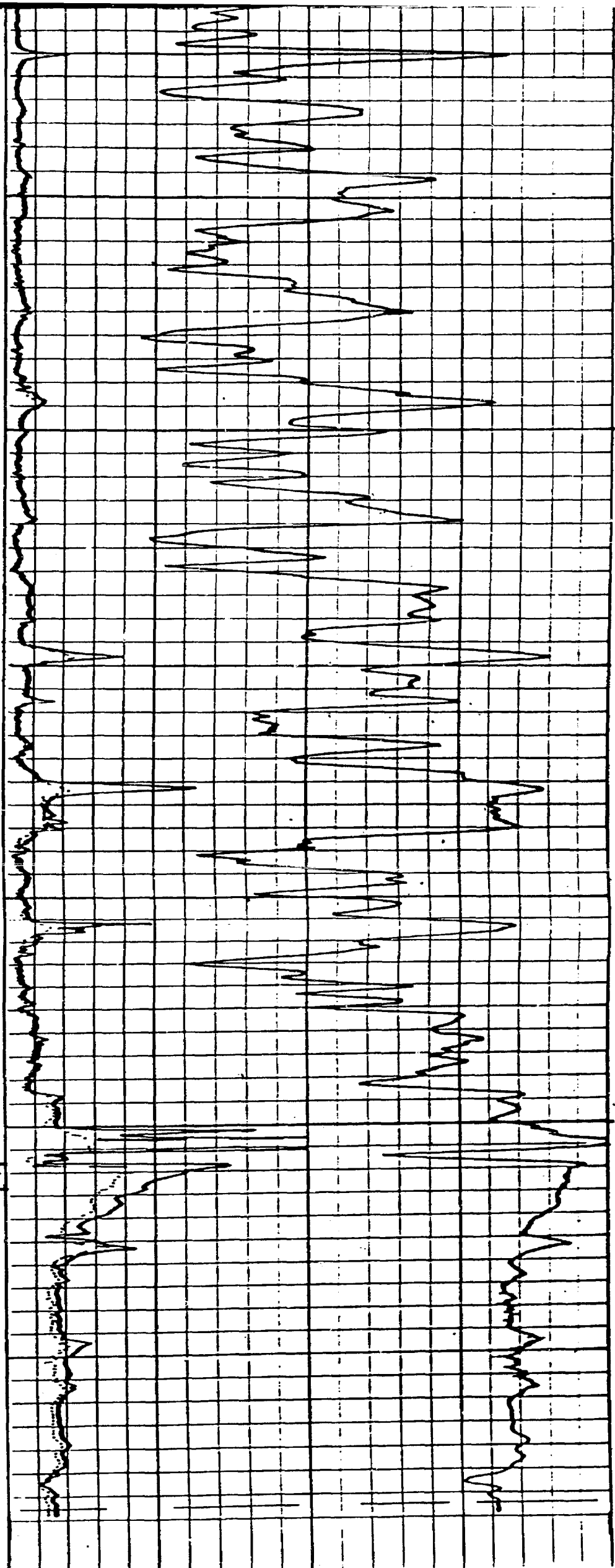
COMPANY DUGAN PRODUCTION CORPORATION WELL DINERO #1 FIELD WILDCAT County SAN JUAN State N. MEX.	COMPANY DUGAN PRODUCTION CORPORATION			
	WELL DINERO #1			
	FIELD WILDCAT			
	COUNTY SAN JUAN		STATE NEW MEXICO	
Location		Other Services:		
1460' FNL - 810' FEL		NONE		
Sec. 13 Twp. 30N Rge. 14W				
Permanent Datum GROUND LEVEL Elev. 5890'		Elev. K.B.		
Log Measured From GROUND LEVEL Ft. Above Perm. Datum		D.F.		
Drilling Measured From GROUND LEVEL		G.L. 5890'		
Date	8-14-78			
Run No.	ONE			
Depth—Driller	1770'			
Depth—Welex	1771'			
Bltn. Log In'	1765'			
Top Log Inter.	48'			
Casing—Driller	7" @ 60'	@	@	
Casing—Welex	7" @ 48'			
Bit Size	4-3/4"			
Type Fluid in Hole	WATER BASE MUD			
Dens. I Visc.				
pH I Fluid Loss				
Source of Sample	MUD PIT			
R _m @ Meas. Temp.	4.5 @ 70 °F	@ °F	@ °F	
R _m @ Meas. Temp.	4.2 @ 70 °F	@ °F	@ °F	
R _m @ Meas. Temp.	3.5 @ 62 °F	@ °F	@ °F	
Source R _m R _m	MEASURED			
R _m @ BHT	@ °F	@ °F	@ °F	
Time Since Circ.	1 1/2 HOURS			
Max. Rec. Temp.	°F @	°F @	°F @	
Equip. I Location	9695 I FARMINGTON I			
Recorded By	P. SHIRK & J. LEEPER			
Witnessed By	K. FAGRELIUS			

APPLICATION FOR DOWNHOLE COMMINGLING
 BY DUGAN PRODUCTION CORP.
 Big Field #2, Big Field #5, Dinero #1,
 and Molly Pitcher #2 Wells.

Case No. 6586

Exhibit No. 4c





1200

1300

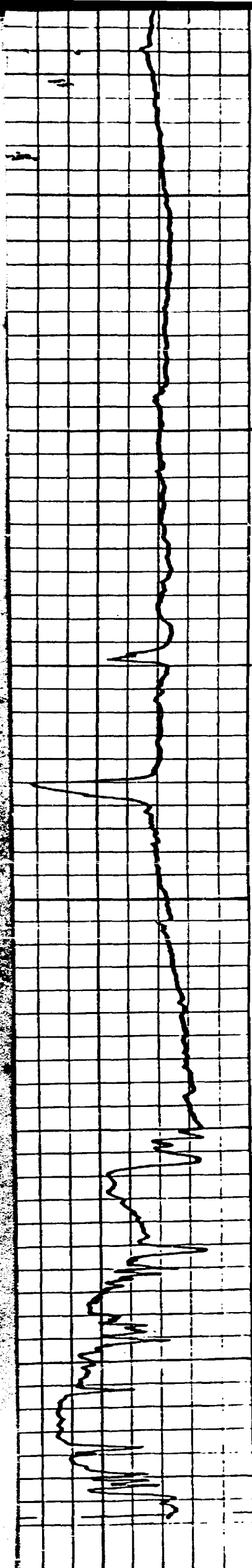
1400

1500

1600
1618


1628

1700



18" Normal

Well File



INDUCTION-ELECTRIC LOG

COMPANY WELL FIELD County State	COMPANY <u>Dugan Production Corporation</u>	WELL <u>Molly Pitcher #2</u>	
	FIELD <u>Willcat</u>		
	COUNTY <u>San Juan</u>		STATE <u>New Mexico</u>
	Location <u>1590' FNL</u> <u>790' FLL</u>		Other Services: <u>NONE</u>
	Sec <u>14</u> Twp <u>30N</u> Rge <u>14W</u>		

Permanent Datum <u>Ground 1.1</u>	Elev. <u>5750</u>	Elev. K.B. _____
Log Measured From <u>Ground 1.1</u>	Ft. Above Perm Datum _____	D.F. _____
Drilling Measured From <u>Ground 1.1</u>		G.L. <u>5750</u>

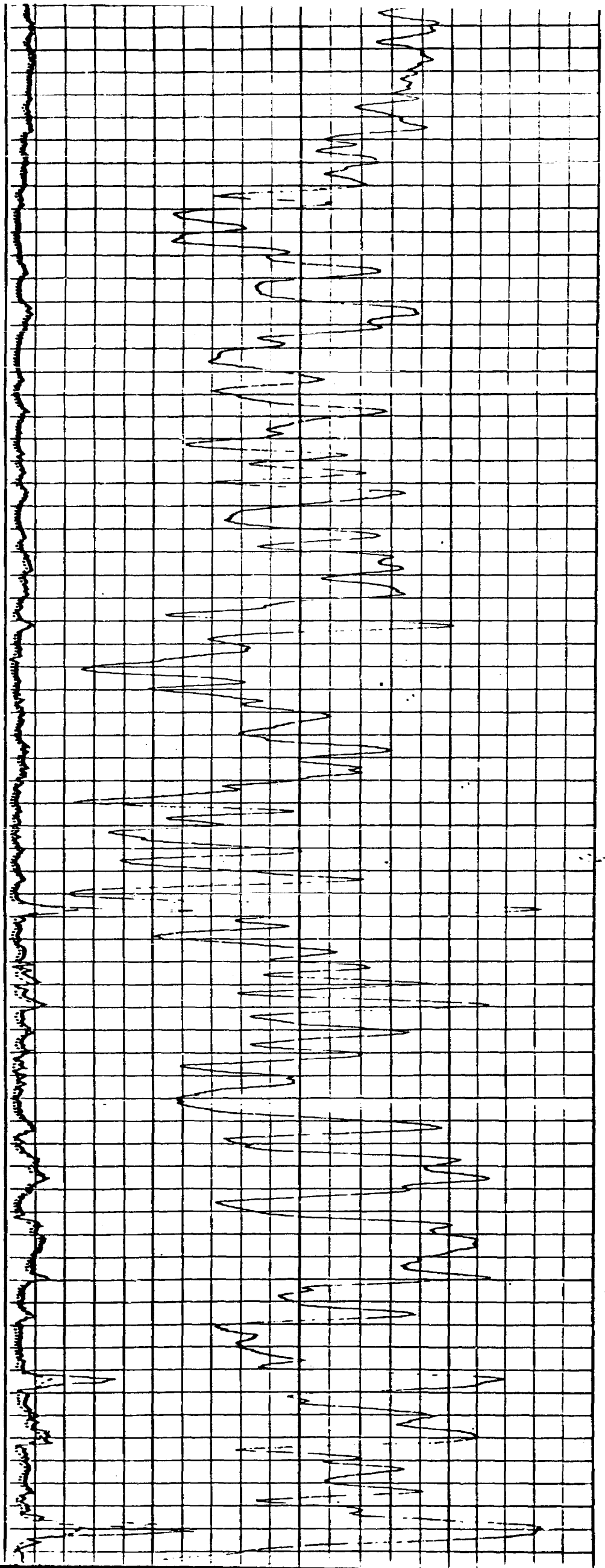
Date	<u>7-28-15</u>		
Run No.	<u>ONE</u>		
Depth—Driller	<u>1500'</u>		
Depth—Welex	<u>1800</u>		
Btm. Log Inter.	<u>1794</u>		
Top Log Inter.	<u>Surf</u>		
Casing—Driller	<u>5'10" @ 63</u>	@	@
Casing—Welex	<u>65</u>		
Bit Size	<u>5'18" @ 360 4 3/4 to 5 D</u>		
Type Fluid in Hole	<u>Fresh Water</u>		
Dens. Visc.	— —		
pH Fluid Loss	— — ml		
Source of Sample	<u>Mud P.T</u>		
R _m @ Meas. Temp.	<u>6.0 @ 66°F</u>	@ °F	@ °F
R _m @ Meas. Temp.	<u>6.0 @ 74°F</u>	@ °F	@ °F
R _m @ Meas. Temp.	<u>5.0 @ 70°F</u>	@ °F	@ °F
Source R _m R _{na}	<u>Alc. ash. J</u>		
R _m @ BHT	@ °F	@ °F	@ °F
Time Since Circ.	<u>1 hour</u>		
Max. Rec. Temp	°F @ <u>TLTM</u>	°F @	°F @
Equip. Location	<u>962511-11111111</u>		
Recorded By	<u>P. SHIRK</u>		
Witnessed By	<u>C. F. R. R. R.</u>		

LAHOH—AA .05845

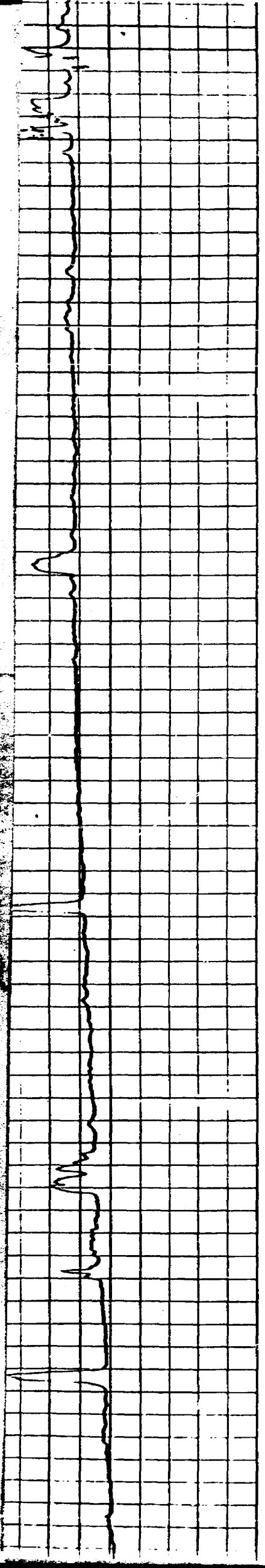
APPLICATION FOR DOWNHOLE COMMINGLING
BY DUGAN PRODUCTION CORP.
Big Field #2, Big Field #5, Dinero #1,
and Molly Pitcher #2 Wells.

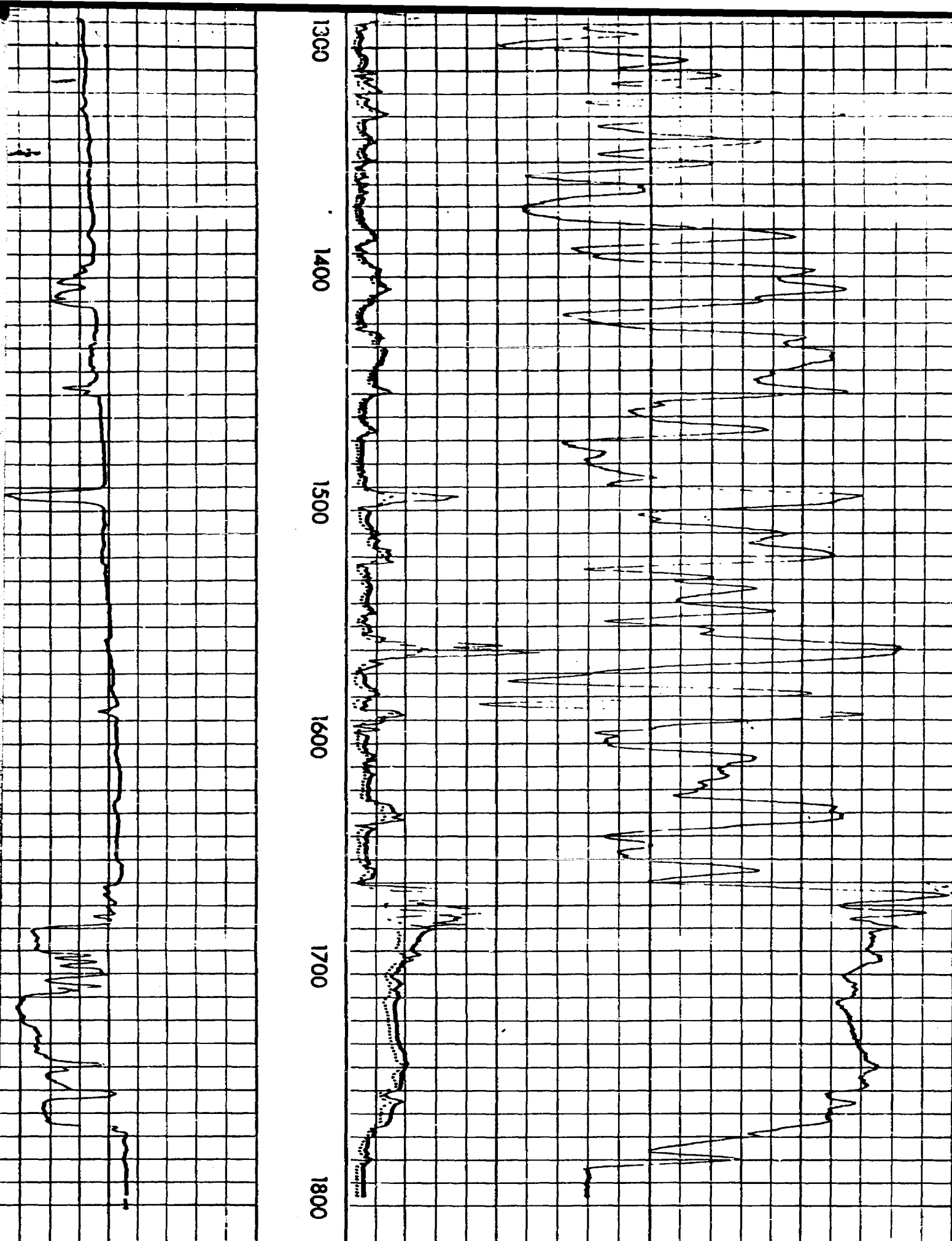
Case No. 6586

Exhibit No. 4d



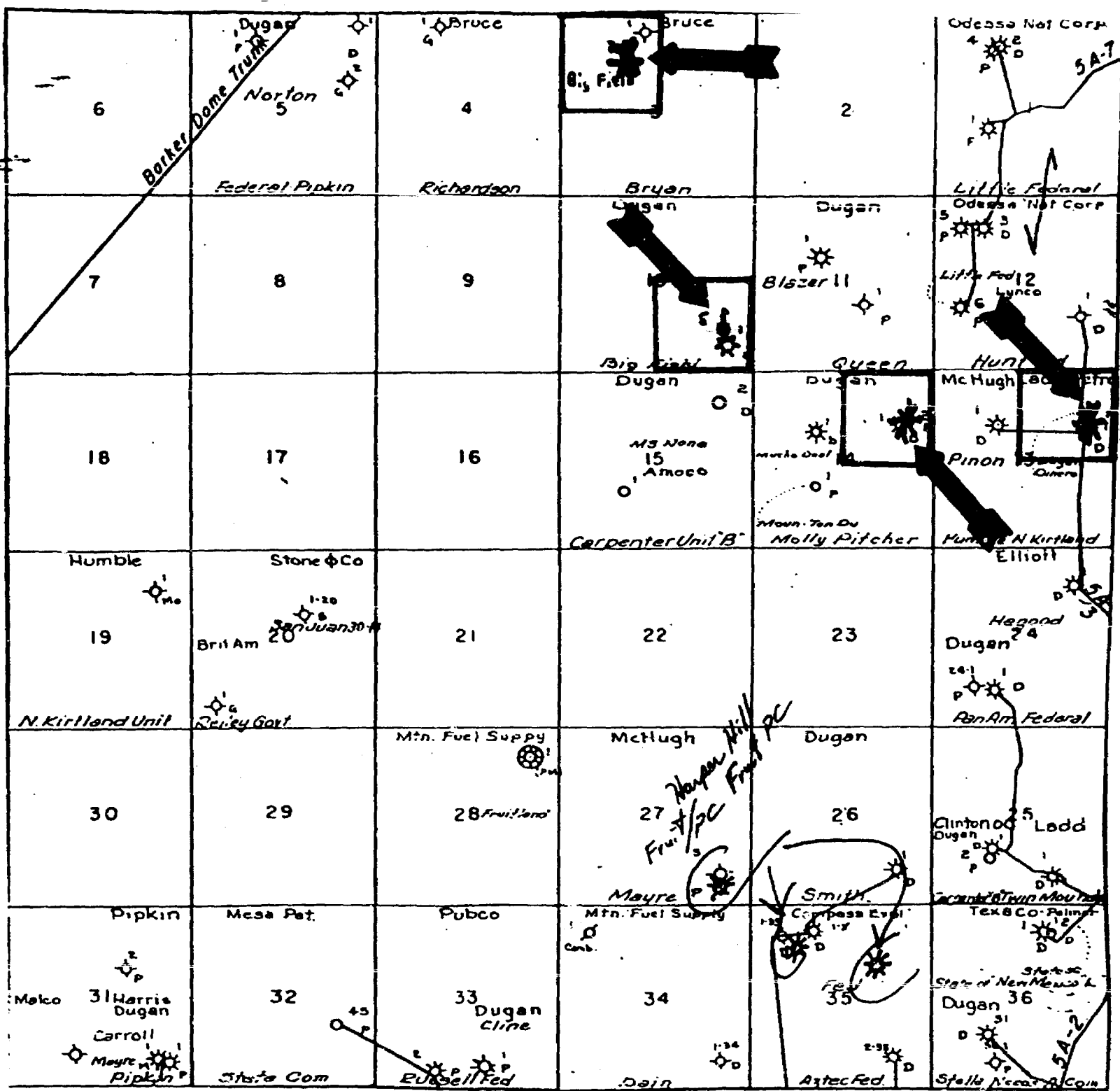
900 1000 1100 1200 1300 1400 1500





5'' = 100'

CONDUCTIVITY MILLIMHOS/M		
400	200	0
	1000	400
POTENTIAL MILLIVOLTS	RESISTIVITY OHMS M ² /M	



Township 30 North, Range 14 West, N.M.P.M.

Dedicated Acreage

Big Field #2 Well

Big Field #5 Well

Dinero #1 Well

Molly Pitcher #2 Well



d/d not comp ?

to be d/d

prod 2-3 BWD PL

d/d, comp, not on prod.

16-15 BWD PD

APPLICATION FOR
DOWNHOLE COMMINGLING
BY DUGAN PRODUCTION CORP.
Big Field #2, Big Field #5,
Dinero #1, and Molly
Pitcher #2 Wells.

Case No. 6586

Exhibit No. 1

6	5	4	*	2	1317 1 5232
7	8	9	10 *	11	12 2829
18	17	16	15	14 *	13 637 *
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

Township 30 North, Range 14 West, N.M.P.M.

1978 PRODUCTION

Conner Fruitland Pool —

San Juan Undesignated Pictured Cliffs Pool —

Twin Mounds Pictured Cliffs Pool —

Dedicated Acreage —

Big Field #2 Well *

Big Field #5 Well *

Dinero #1 Well *

Molly Pitcher #2 Well *

APPLICATION FOR DOWNHOLE COMMINGLING
BY DUGAN PRODUCTION CORP.
Big Field #2, Big Field #5, Dinero #1,
and Molly Pitcher #2 Wells

Case No. 6586

Exhibit No. 2



dugan production corp.

Dugan Production Corp.
Big Field #2

MORNING REPORT

- 10-14-78 Moved in and rigged up Morrow Drlg Co. Spudded 7-7/8" hole @ 11:00 a.m. Drlg to 65'. Ran 2 jts 5-1/2" OD 14# ST&C csg. TE 63.64' set @ 65' GR. Cemented by Woodco. Cemented w/35 sx. Good cement to surface. Job complete @ 2:30 p.m. 10-13-78.
- 10-15-78 Depth 500'. Drlg 4-3/4" hole w/wtr.
- 10-16-78 Depth 1020'. Drlg 4-3/4" hole w/wtr.
- 10-17-78 Drlg 4-3/4" hole to 1305' TD. Moved in and rigged up Birdwell Logging Co. and ran IES log to TD.
- 10-18-78 TD 1310'. Ran 42 jts 2-7/8" OD 6.4# CW-55 10R reg tbg for csg. TE 1297.50' set @ 1297' GR. Preflushed hole w/100 gals mud sweep. Reciprocated pipe and had good circulation while cementing. Cemented w/50 sx 65-35 w/12% gel w/1/4# cello flake per sx followed by 75 sx class "B" w/1/4# cello flake per sx. Total slurry 214 cu ft. Bumped plug w/1500 psi, released to 750 psi. Shut in. POB 12:45 p.m. 10-17-78.
- 10-27-78 Rigged up Drake Well Service swabbing unit and Blue Jet perforators. PBTD 1275'. Ran GR, collar locator and Neutron correlation log. Swabbed hole down to approx 1000'. Perforated 1198-1208' zone on correlation log, 10 holes 1 spf w/2-1/8" bi wire glass jets. Swabbed well dry on 1st run, waited 15 mins. swabbed dry hole, no sign of gas or water entry.. Loaded hole with 4 Bbl water, fluid level @ 700'. Perforated 1078-1092 zone on correlation log, 14 holes 1 spf w/2-1/8" bi wire glass jets. Perforated 1068-1078 zone on correlation log, 10 holes, 1 spf w/2-1/8" bi wire glass jets. Swabbed hole, recovered load water and coal. Swabbed hole dry, waited 15 min. swabbed again, no water, slight amount of gas ahead of swab.

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APPLICATION FOR DOWNHOLE COMMINGLING
BY DUGAN PRODUCTION CORP.
Big Field #2, Big Field #5, Dinero #1,
and Molly Pitcher #2 Wells.

Case No. 6586

Exhibit No. 3a

10-28-78

Rigged up Allied Services, Pumped 125 gal 15% HCl 1-1/2 B/M, dropped 11 ball sealers, pumped 125 gal 15% HCl @ 1-1/2 B/M, dropped 11 ball sealers, displaced acid w/7 Bbl water @ 1-1/2 B/M. Breakdown pressure of 1700 psi occurred while pumping 4th bbl of acid, estimated 300 ft of water in hole. Ball sealer action occurred during 2nd bbl water displaced, pressure to 1100 psi. Displacement pressure 700-500 psi. Swabbed hole dry w/2 runs, no gas ahead of swab, waited 15 min swabbed again swabbed 1/4 bbl acid tasting water, waited 15 min, swabbed again swabbed 1/4 bbl acid tasting water. Shut well in.

6-6-79

Foam fraced well by Nowsco and Western Co w/70 quality foam. Used 18 gals adafoam, 13,000# 10-20 sand, 71.5 Bbls wtr., 71,600 SCF of nitrogen (Had to cut frac job short of planned job due to Western Co. blender failure). Dropped 20 ball sealers in one stage - 50 psi increase when balls hit formation ITP 1650 psi, Min 1600 psi, Max 1650 psi, Ave 1650 psi, IR 15 B/M foam, ISDP 1050 psi, 15 min std pressure 1050 psi - left well shut in two hours opened to atmosphere through 3/4" choke.

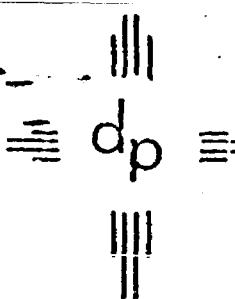
6-8-79

Moved in and rigged up FWS swabbing unit. Ran 36 jts 1-1/4" OD 2.4# CW-55 10R EUE tbg. TE 1175.67' set @ 1174' GR. Baker Model "C" packer @ 1143' in set down position w/1 jt tail pipe. Landed tbg and nipped up well head. Started swabbing.

APPLIACTION FOR DOWNHOLE COMMINGLING
BY DUGAN PRODUCTION CORP.
Big Field #2, Big Field #5, Dinero #1,
and Molly Pitcher #2 Wells.

Case No. 6586

Exhibit No. 3a



dugan production corp.

Dugan Production Corp.
Dinero #1
1460' FNL - 810' FEL
Sec 13 T30N R14W
San Juan County, NM
Elevation 5890' GR

MORNING REPORT

- 8-11-78 Moved in and rigged up Morrow Drlg Co. Spudded 7-7/8" hole @ 8:00 a.m. Drlg to 40'. Ran 1 jt 5-1/2" OD 14# ST&C csg. TE 39.6 set @ 40' GR. Cemented to surface w/8 sx cement. Job complete 9:30 a.m. 8-10-78. WOC 10 hrs.
- 8-12-78 Depth 1430'. Drlg 4-3/4" hole w/wtr.
- 8-13-78 Depth 1580. Down 20 hrs for pump repair
- 8-14-78 TD 1770'. Prep. to run logs.
- 8-15-78 Ran Welex IES log to TD 1770'. Rigged up csg tools. Ran 61 jts 2-7/8" OD 6.4# J-55 10R NEUE tbg for csg. TE 1768.32' set @ 1767' GR. Had good mud returns and reciprocated pipe while cementing. Cemented w/60 sx 65-35 w/12% gel w/1/4# flo cele per sx followed by 75 sx class "8" neat w/1/4# flo cele per sx. Total slury 246 cu ft. Preflushed hole w/250 gals CW-7 mud wash. Bumped plug w/2000 psi. Released press - held OK. POB 4:57 p.m. 8-14-78.
- 8-23-78 Moved in and rigged up FWS pulling unit. GO Wireline ran gamma ray correlation and collar logs. PBTD 1733'. Swabbed 2-7/8" csg down to 1350'. Perf w/1 2-1/8" glass jets per foot 1618-1628' (10 holes). Made one swab run to bottom. Well kicked off making estimated 150 MCFGPD.

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APPLICATION FOR DOWNHOLE COMMINGLING
BY DUGAN PRODUCTION CORP.
Big Field #2, Big Field #5, Dinero #1,
and Molly Pitcher #2 Wells.

Case No. 6586

Exhibit No. 36

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEYSUBMIT IN THE
(Other Instructions
verse side)

(T)

BUDGET BUREAU NO. 42-101424

5. LEASE DESIGNATION AND SERIAL NO.

SF 079070

6. FIELD NO. (If known, attach to this form)

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.
Use "APPLICATION FOR PERMIT—" for such proposals.)

1. WELL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/>	7. UNIT AGREEMENT NAME
2. NAME OF OPERATOR Dugan Production Corp.	8. FARM OR LEASE NAME Dinero
3. ADDRESS OF OPERATOR Box 234, Farmington, NM 87401	9. WELL NO. 1
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements. See also space 17 below.) At surface 1460' FNL - 810' FEL	10. FIELD AND POOL, OR WILDCAT Wildcat PC
14. PERMIT NO.	11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA Sec 13 T30N R14W
15. ELEVATIONS (Show whether DF, HT, GR, etc.) 5890' GR	12. COUNTY OR PARISH San Juan
	13. STATE NM

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data:

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF <input type="checkbox"/>	FULL OR ALTER CASING <input type="checkbox"/>	WATER SHUT-OFF <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	MULTIPLE COMPLETE <input type="checkbox"/>	FRACTURE TREATMENT <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	ABANDON* <input type="checkbox"/>	SHOOTING OR ACIDIZING <input type="checkbox"/>	ABANDONMENT* <input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	(Other) <u>tbq</u>	

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

11-17-78

Moved in and rigged up FWS swabbing unit. Ran 51 jts. 1 1/2" OD. 2.75# J-55 10R IJ tbq. TE 1653.07' set @ 1651' GR. Nipped up well head and landed tbq. Shut well in and rigged down swabbing unit.

18. I hereby certify that the foregoing is true and correct

SIGNED

Thomas A. Dugan

(This space for Federal or State office use)

TITLE Petroleum Engineer

DATE 11-28-78

APPROVED BY

CONDITIONS OF APPROVAL, IF ANY:

TITLE

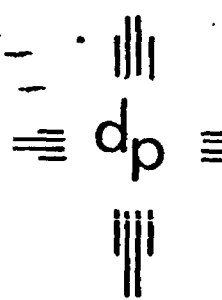
DATE

*See Instructions on Reverse Side

APPLICATION FOR DOWNHOLE COMMINGLING
BY DUGAN PRODUCTION CORP.
Big Field #2, Big Field #5, Dinero #1,
and Molly Pitcher #2 Wells.

Case No. 6586

Exhibit No. 36



dugan production corp.

Dugan Prouduction Corp.
Dinero #1
1460' FNL - 810' FEL
Sec 13 T30N R14W
San Juan County, NM
Elevation 5890' GR

REMEDIAL OPERATIONS

- 6-4-79 Moved in and rigged up FWS swabbing unit. Blew well down. Pulled 1-1/2" tbg. Removed well head and installed master valve for frac. Shut in. Rigged down FWS.
- 6-6-79 Foam fraced w/Newsco and Western Co w/70 quality foam. Used 25 gals adafoam, 103.5 bbls wtr and 128,800 SCF of nitrogen. Started pad - pressured up to 4000 psi - blew well down and pressured up and broke down w/wtr. Formation broke down and fraced as follows: ITP 1800 psi, Min 1700 psi, Max 1800 psi, Ave 1750 psi. Dropped 15 ball sealers in one stage - got 50 psi pressure increase when balls hit. Average IR foam 15 B/M. ISDP 1300 psi. 5 min stdg press 1200 psi. Left well shut in two hours. Opened to atmosphere through 5/8" pos choke.
- 6-7-79 Moved in and rigged up FWS swabbing unit. Well unloading water and gas. Making estimated 500 MCF. Re-ran 50 jts 1-1/2" tbg. TE 1620.59' set @ 1618'. Tagged sand @ 1628' cleaned out to 1653'. Landed tbg and nipped up well head. Put well back on production. Rigged down FWS.

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APPLICATION FOR DOWNHOLE COMINGLING
BY DUGAN PRODUCTION CORP.
Big Field #2, Big Field #5, Dinero #1,
and Molly Pitcher #2 Wells.

Case No. 6586

Exhibit No. 36

dp dugan production corp.

Dugan Production Corp.
Molly Pitcher #2
1590' FNL - 790' FEL
Section 14, T30N R14W
San Juan County, NM
Elevation: 5950' GR

MORNING REPORT

- 7-26-78 Moved in and rigged up Morrow Drlg. Co. Spudded 8-3/4" hole @ 9:00 a.m. Drlg to 65'. Ran 2 jts 7" OD 26# LT&C csg. TE 64.19' set @ 64' GR. Cemented to surface w/35 sx class "B" neat w/2% CaCl. POB 11:10 a.m. 7-25-78.
- 7-27-78 Depth 1133' on bottom with new bit. Drlg with water.
- 7-28-78 TD 1800'. Logs on bottom.
- 7-29-78 Rigged up csg tools. Ran 61 jts 2-7/8" OD 6.4# CW-55 10R NEUE tbg for csg. TE 1797.97' set @ 1797' GR. Had good mud returns and reciprocated pipe while cementing/ Preflushed hole w/100 gals mud sweep. Cemented w/60 sx 65-35 w/12% gel 1/1/4# cello flake per sx followed by 75 sx class "B" w/1/4# cello flake per sx. Total slury 239 cu ft. Bumped plug w/1500 psi. Released to 750 psi. Shut in. Circulated trace of cement. POB 11:55 a.m. 7-28-78.
- 8-23-79 Moved in FWS swabbing unit. GO Wireline ran Gamma Ray correlation and collar logs. PBTD 1778'. Swabbed 2-7/8" csg down to 1200'. Perf by GO Wireline 1679-1689', 1586-1589' and 1492-1497'. Swabbed well down - no indication of water entry w/very slight show gas.
- 8-31-79 Acidized well by Allied Services w/250 gals 15% reg acid w/2 gals Tretolite former. Dropped 15 ball sealers in acid - some ball action. Breakdown pressure 1750 psi - back to 750 psi @ 1-1/2 B/M. Had 200 psi increase when ball hit. Flushed w/10 bbls water. Swabbed down. Slight increase in gas - no indicated water entry.
- 6-6-79 Foam fraced w/Nowasco and Western Co w/70 quality foam. Used 25 gals. adafoam, 22,000# 10-20 sand, 103.5 bbls wtr and 128,800 SCF of Nitrogen Dropped 15 ball sealers in one stage got 25 psi pressure increase when balls hit perfs. Initial frac 1750 psi - Max 1900 psi, Min 1750 psi, Ave 1850 psi. Average IR 15 B/M foam. Left well shut in one hour. Opened well to atmosphere - unloading heavy mist of water and estimated 350 MCFGPD after eight hours.

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APPLICATION FOR DOWNHOLE COMMINGLING
BY DUGAN PRODUCTION CORP.
Big Field #2, Big Field #5, Dinero #1,
and Molly Pitcher #2 Wells.

Case No. 6586

Exhibit No. 3c

Dugan Production Corp.
Molly Pitcher #2
Page 2

6-7-79 Moved in and rigged up FWS swabbing unit. Well unloading wtr and gas. Ran 52 jts 1-1/4" OD 2.4# CW-55 10R EUE tbg. TE 1683.53' set @ 1681'G. Had cross pin in bottom for swab stop. Landed tbg and nipped up well head. Well came around thru tbg. Rigged down FWS.

APPLICATION FOR DOWNHOLE COMMINGLING
BY DUGAN PRODUCTION CORP.
Big Field #2, Big Field #5, Dinero #1,
and Molly Pitcher #2 Wells.

Case No. 6586

Exhibit No. 3c



Perf. 0115"

Induction Electric Log

Well File

COMPANY DUGAN PRODUCTION CORPORATION

WELL BIG FIELD #2

FIELD WILDCAT

COUNTY SAN JUAN STATE NEW MEXICO

LOCATION: 790' FWL 1850' FWL
N -30
SEC. 3 TWP. 30N RGE. 14W

OTHER SERVICES:
NONE

PERMANENT DATUM GROUND LEVEL ELEV. 5662'
LOG MEASURED FROM G.L. 0 FT. ABOVE PERM. DATUM
DRILLING MEASURED FROM GROUND LEVEL

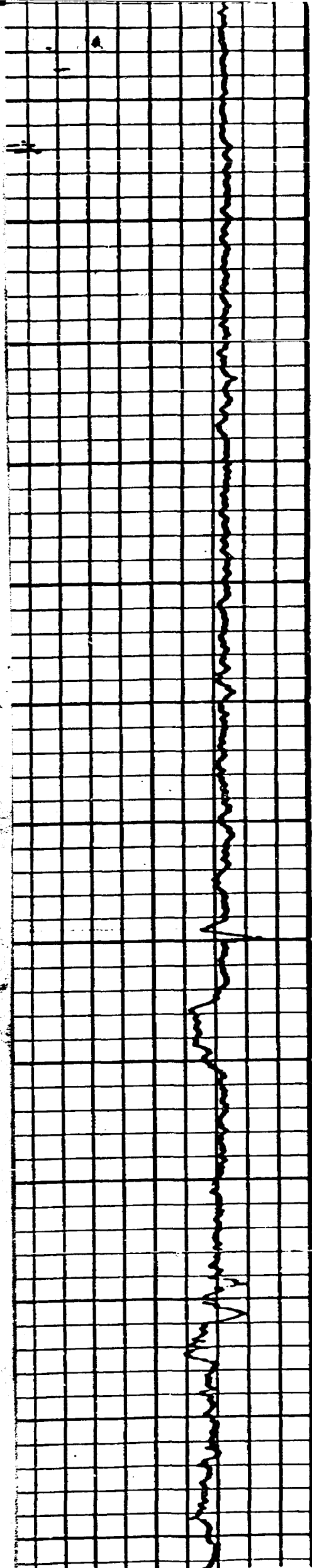
ELEV. K.B. N.A.
D.F. N.A.
G.I. 5662'

DATE	10/16/78				
RUN NO.	ONE				
DEPTH-DRILLER	1310'				
DEPTH-LOGGER	1310'				
BTM. LOG INTER.	1305'				
TOP LOG INTER.	0'				
CASING-DRILLER	5 1/2 @ 40'	@	@	@	@
CASING-LOGGER	NOT REACHED				
BIT SIZE	4 3/4"				
TYPE FLUID IN HOLE	MUD FILL				
DENS.	VISC.	N.A.	2.8		
pH	FLUID LOSS	N.A.	50 ml	ml	ml
SOURCE OF SAMPLE	PIT				
R _m @MEAS.TEMP.	1.0 @ 78 °F	@	°F	@	°F
R _{mf} @MEAS.TEMP.	1.0 @ 76 °F	@	°F	@	°F
R _{mc} @MEAS.TEMP.	.85 @ 76 °F	@	°F	@	°F
SOURCE R _{mf} R _{mc}	PRESS PRESS				
R _m @ B.H.T.	@ 8.0 °F	@	°F	@	°F
TIME SINCE CIRC.	2 HOURS				
MAX. REC. TEMP.	820 °F		°F		°F
EQUIP. LOCATION	34 2959				
RECORDED BY	MARTINEZ				
WITNESSED BY	FAGZELIUS				

APPLICATION FOR DOWNHOLE COMMINGLING
BY DUGAN PRODUCTION CORP.
Big Field #2, Big Field #5, Dinero #1
and Molly Pitcher #2 Wells.

Case No. 6586

Exhibit No. 4a



700

800

900

1000

1078

1092

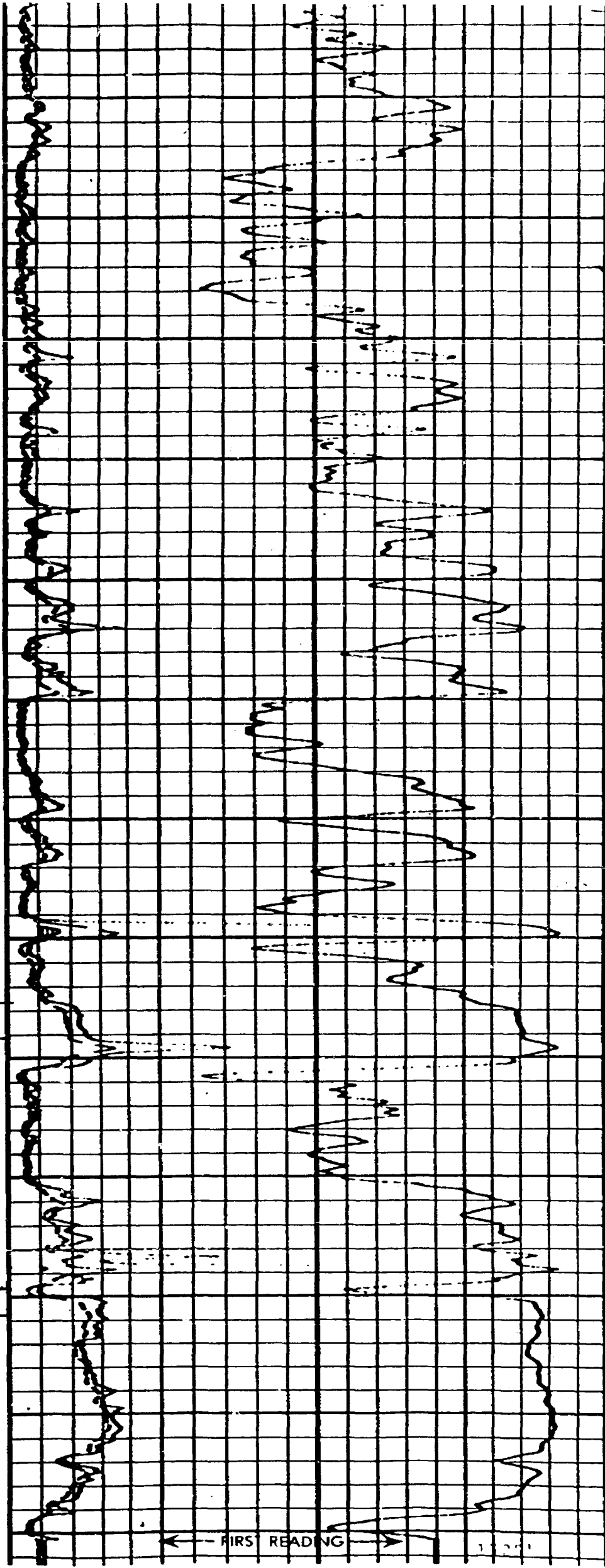
1100

1198

1200

1208

1300



FIRST READING



INDUCTION ELECTRIC LOG

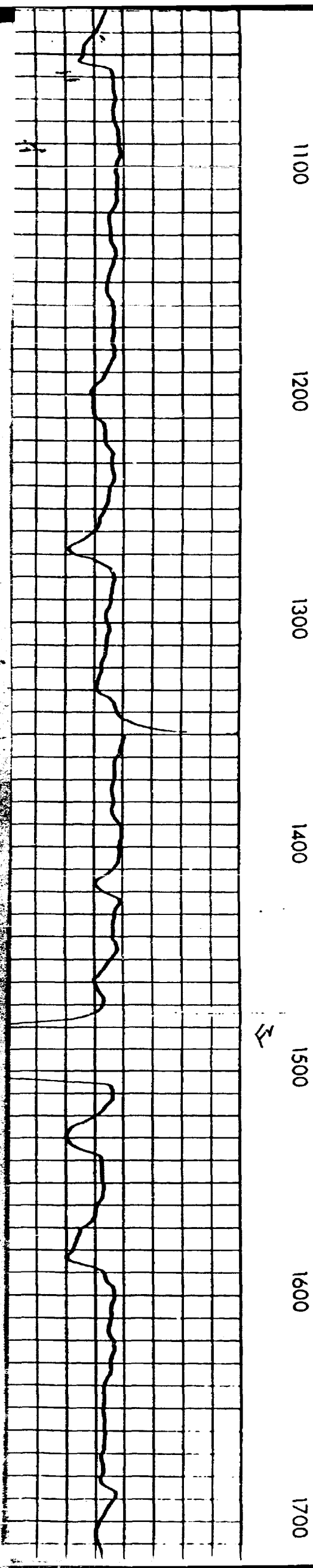
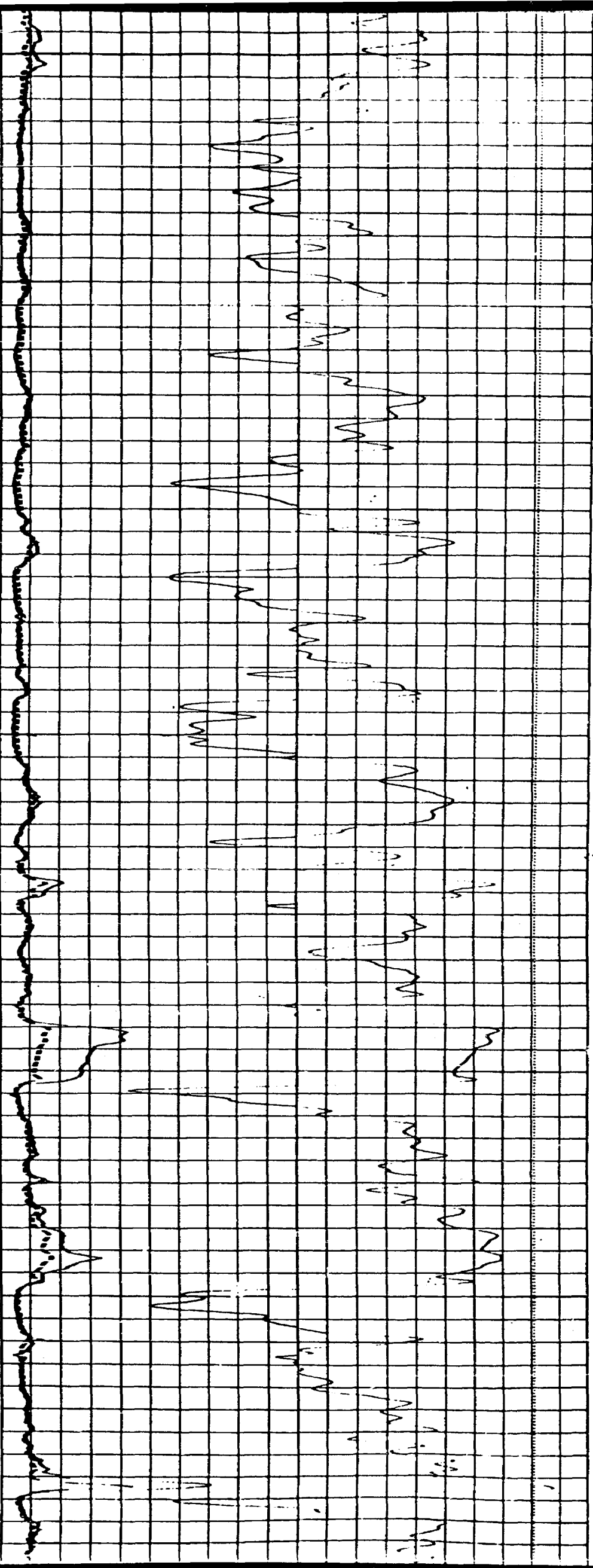
COMPANY	WELL	FIELD	County	State	COMPANY <u>DUGAN PRODUCTION CORPORATION</u>			
					WELL <u>BIG FIELD #1</u>			
					FIELD <u>BASIN DAKOTA</u>			
					COUNTY <u>SAN JUAN</u> STATE <u>NEW MEXICO</u>			
Location					Other Services:			
790' FSL & 790' FEL					CDL			
Sec <u>10</u> Twp <u>30N</u> Rge <u>14 W</u>								
Permanent Datum <u>GROUND LEVEL</u> Elev. <u>6143</u>					Elev.: K.B. <u>6153</u>			
Log Measured From <u>KELLY BUSHING</u> <u>10</u> Ft. Above Perm. Datum					D.F. <u>6152</u>			
Drilling Measured From <u>KELLY BUSHING</u>					G.L. <u>6143</u>			
Date	<u>3-25-79</u>							
Run No.	<u>ONE</u>							
Depth—Driller	<u>6680'</u>							
Depth—Welex	<u>6677'</u>							
Btm. Log Inter.	<u>6670'</u>							
Top Log Inter.	<u>210'</u>							
Casing—Driller	<u>8 5/8" @ 210'</u>			@	@	@	@	
Casing—Welex	<u>2 10'</u>							
Bit Size	<u>7 7/8"</u>							
Type Fluid in Hole	<u>DRILLING MUD</u>							
Dens. I Visc.	<u>9.2 150</u>							
pH I Fluid Loss	<u>8.0 117 ml</u>							
Source of Sample	<u>FLOW LINE</u>							
R _m @ Meas. Temp.	<u>3.0 @ 80 °F</u>			@	@	@	@	
R _m @ Meas. Temp.	<u>2.8 @ 65 °F</u>			@	@	@	@	
R _m @ Meas. Temp.	<u>3.3 @ 65 °F</u>			@	@	@	@	
Source R _m R _h	<u>MEASURED</u>							
R _m @ BHT	<u>1.35 @ 200 °F</u>			@	@	@	@	
Time Since Circ.	<u>3 HOURS</u>							
Max. Rec. Temp.	<u>200 °F @ TD</u>			°F @	°F @	°F @	°F @	
Equip. I Location	<u>1893 IFARMINGTON</u>							
Recorded By	<u>E.C. Collins</u>							
Witnessed By	<u>Mr. Fagretius</u>							

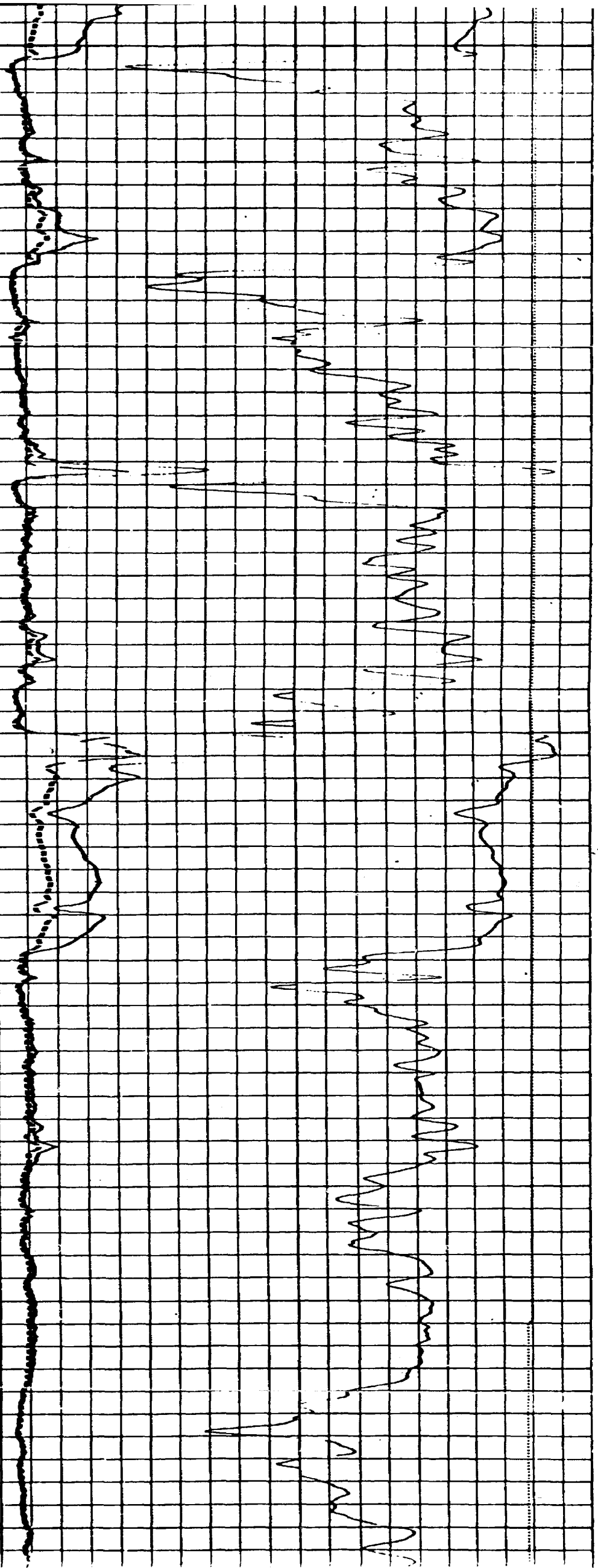
LAHOH—AA 05845

APPLICATION FOR DOWNHOLE COMMINGLING
BY DUGAN PRODUCTION CORP.
Big Field #2, Big Field #5, Dinero #1,
and Molly Pitcher #2 Wells.

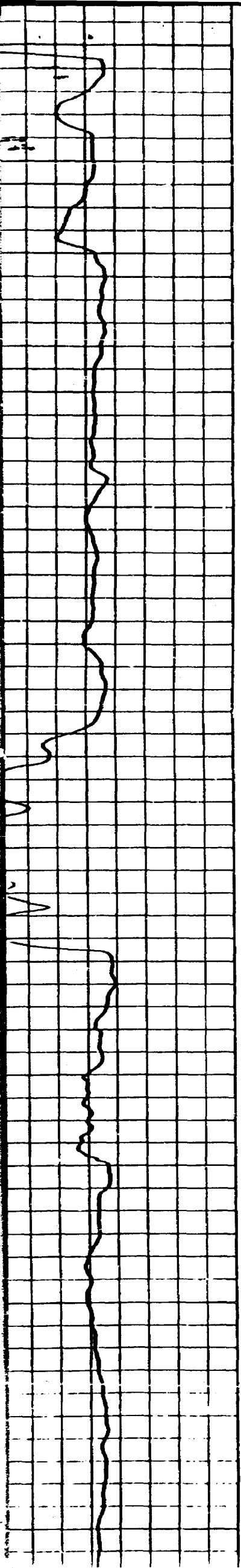
Case No. 6586

Exhibit No. 46





2





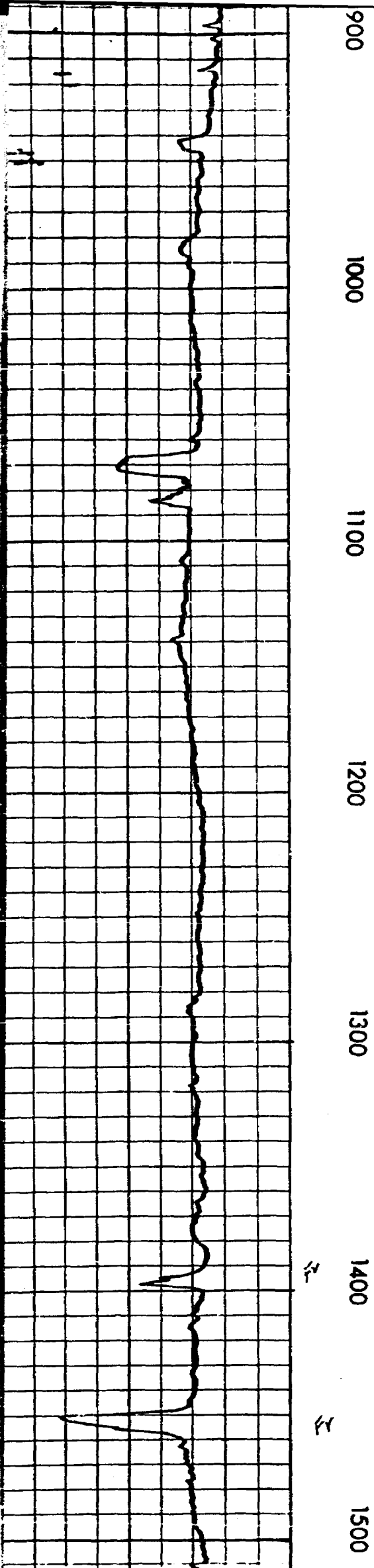
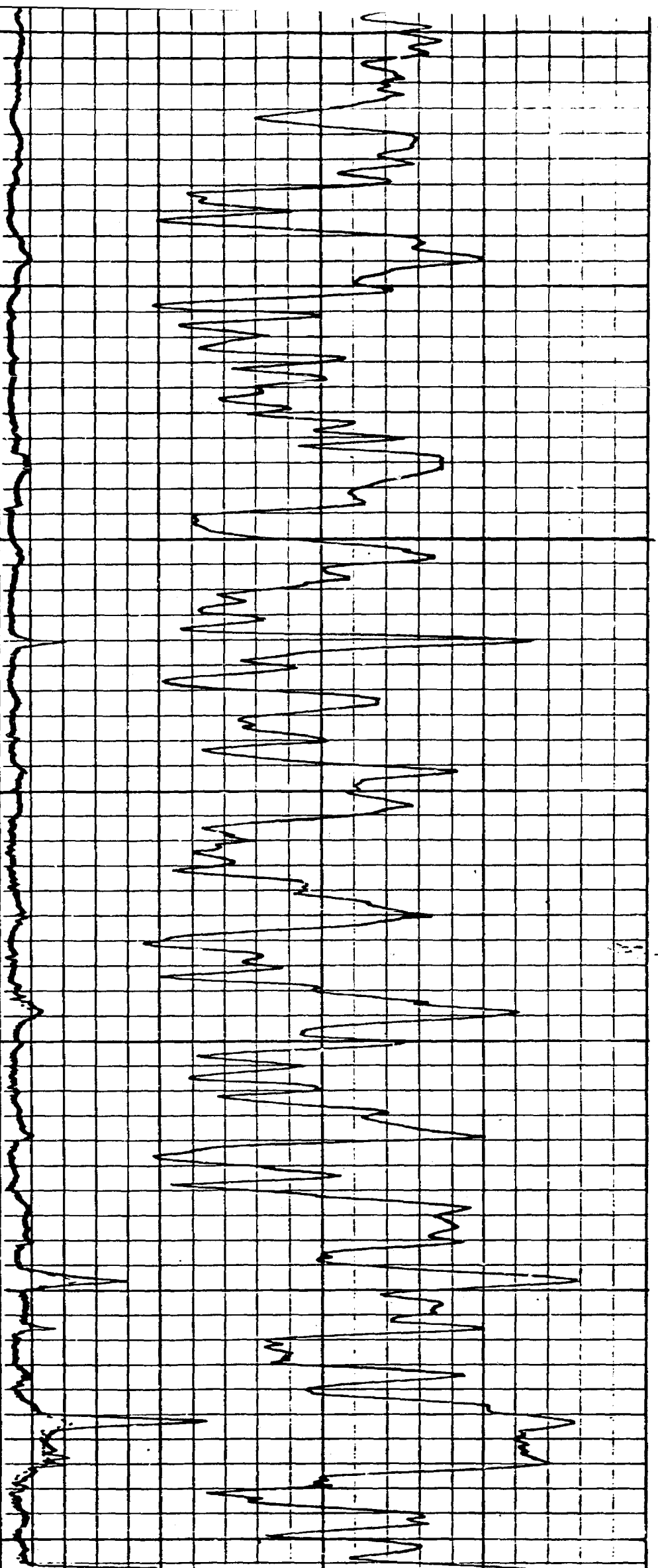
INDUCTION ELECTRIC LOG

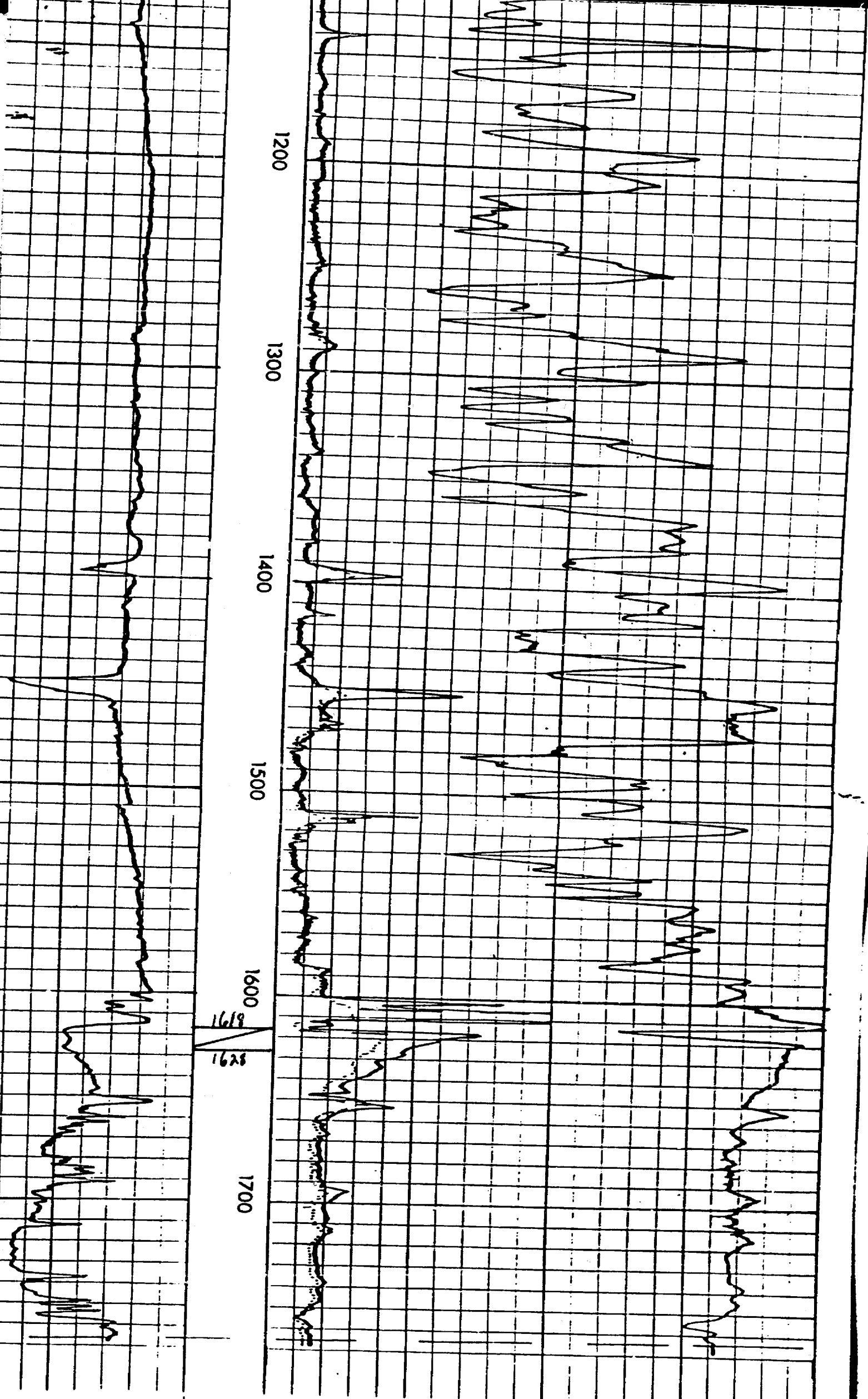
COMPANY DUGAN PRODUCTION CORPORATION WELL DINERO #1 FIELD WILDCAT County SAN JUAN State N. MEX.	COMPANY DUGAN PRODUCTION CORPORATION			
	WELL DINERO #1			
	FIELD WILDCAT			
	COUNTY SAN JUAN		STATE NEW MEXICO	
Location		Other Services:		
1460' FNL - 810' FEL		NONE		
Sec. 13 Twp. 30N Rge. 14W				
Permanent Datum GROUND LEVEL Elev. 5890'		Elev. K.B.		
Log Measured From GROUND LEVEL Ft. Above Perm. Datum		D.F.		
Drilling Measured From GROUND LEVEL		G.L. 5890'		
Date	8-14-78			
Run No.	ONE			
Depth—Driller	1770'			
Depth—Welex	1771'			
Btm Log Inter.	1765'			
Top Log Inter.	48'			
Casing—Driller	7" @ 60'	@	@	
Casing—Welex	7" @ 48'			
Bit Size	4-3/4"			
Type Fluid in Hole	WATER BASE MUD			
Dens. I Visc.	I	I	I	
pH I Fluid Loss	I ml	I ml	I ml	
Source of Sample	MUD PIT			
R _m @ Meas. Temp.	4.5 @ 70 °F	@ °F	@ °F	
R _m @ Meas. Temp.	4.2 @ 70 °F	@ °F	@ °F	
R _m @ Meas. Temp.	3.5 @ 62 °F	@ °F	@ °F	
Source R _m R _m	MEASURED	I	I	
R _m @ BHT	@ °F	@ °F	@ °F	
Time Since Circ.	1 1/2 HOURS			
Max. Rec. Temp.	°F @	°F @	°F @	
Equip. I Location	9695 I FARMINGTON I	I	I	
Recorded By	P. SHIRK & J. LEEPER			
Witnessed By	K. FAGRELIUS			

APPLICATION FOR DOWNHOLE COMMINGLING
BY DUGAN PRODUCTION CORP.
Big Field #2, Big Field #5, Dinero #1,
and Molly Pitcher #2 Wells.

Case No. 6586

Exhibit No. 4c





18" Normal



INDUCTION-ELECTRIC LOG

Well File -

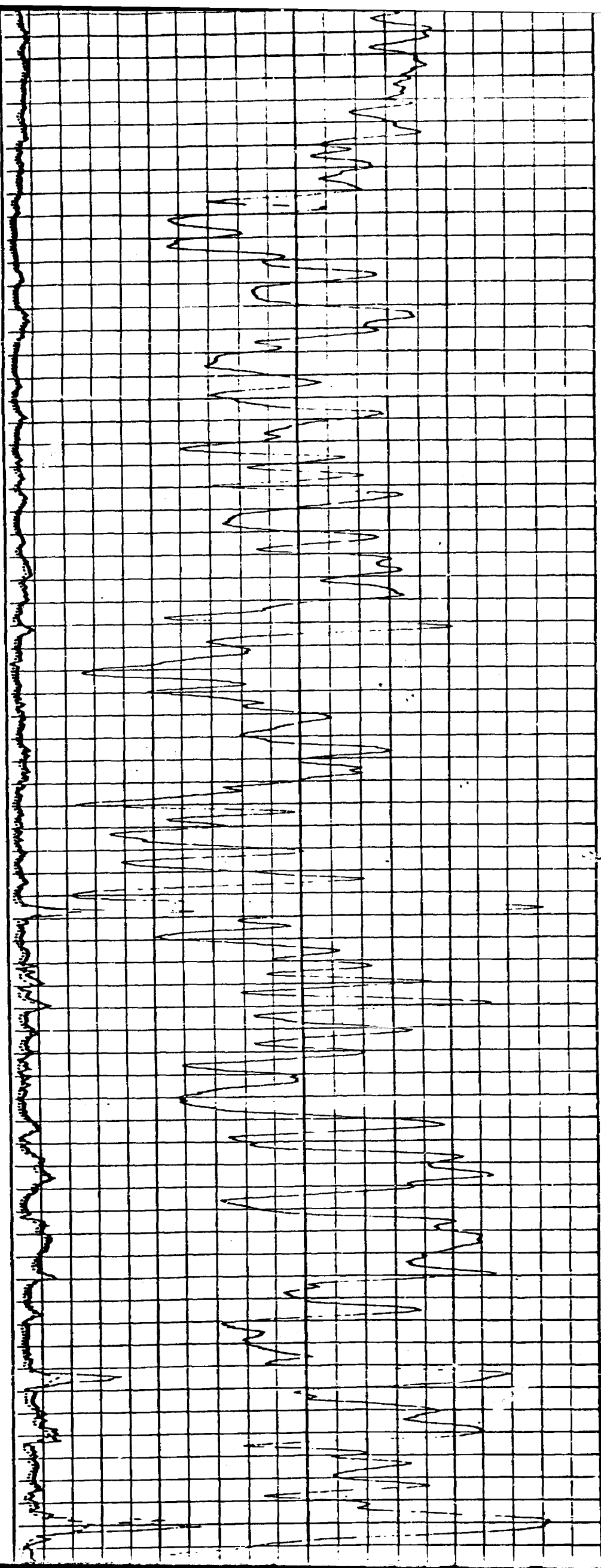
COMPANY Dugan Production Corporation
WELL Molly Pitcher #2
FIELD Willcat
COUNTY San Juan STATE New Mexico
Location 1500' FNL
790' FLL
Other Services: NONE
Sec. 14 Twp. 30N Rge. 14W
Permanent Datum Ground 1.1 Elev. 5750 Ek: v. K.B. _____
Log Measured From Ground 1.1 Ft. Above Perm. Datum _____ D.F. _____
Drilling Measured From Ground 1.1 G.L. 5750
Date 7-28-15
Run No. ONE
Depth—Driller 1500'
Depth—Welex 1800
Btm. Log Inter. 1794
Top Log Inter. 5'12" @ 63 @ @ @
Casing—Driller 65
Casing—Welex 65
Bit Size 5'8" @ 360 4 3/4 ID 1
Type Fluid in Hole Fresh Water
Dens. I Visc. 1 ml 1 ml 1 ml 1 ml
pH I Fluid Loss 1 ml 1 ml 1 ml 1 ml
Source of Sample Mud P.T @ °F @ °F @ °F
R_m @ Meas. Temp. 6.0 @ 66°F @ °F @ °F @ °F
R_m @ Meas. Temp. 6.0 @ 74°F @ °F @ °F @ °F
R_m @ Meas. Temp. 5.0 @ 70°F @ °F @ °F @ °F
Source R_m R_m Alc. 1.1 @ °F @ °F @ °F @ °F
R_m @ BHT 1.1 @ °F @ °F @ °F @ °F
Time Since Circ 1 Hour °F @ °F @ °F @ °F
Max. Rec. Temp °F @ 11M °F @ °F @ °F @ °F
Equip. I Location 9625 V. 1.1
Recorded By P. Shirk & C. R. 300
Witnessed By C. F. R. 1.1

LAHOH-AA.05845

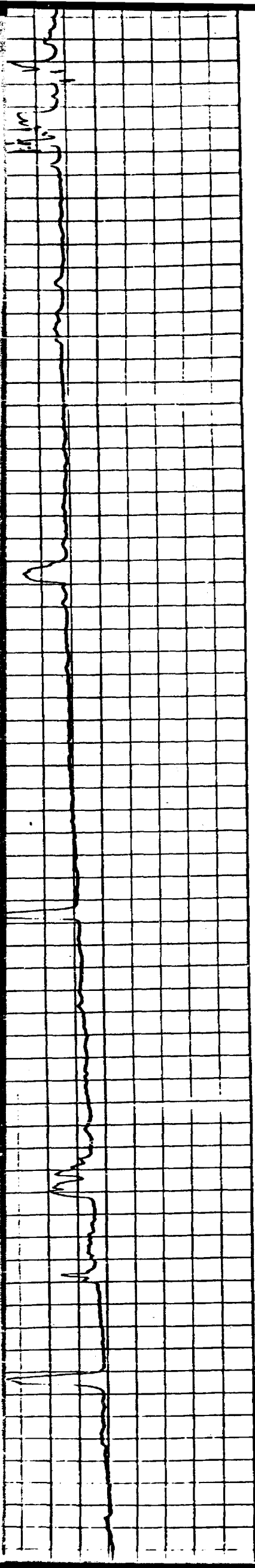
APPLICATION FOR DOWNHOLE COMMINGLING
BY DUGAN PRODUCTION CORP.
Big Field #2, Big Field #5, Dinero #1,
and Molly Pitcher #2 Wells.

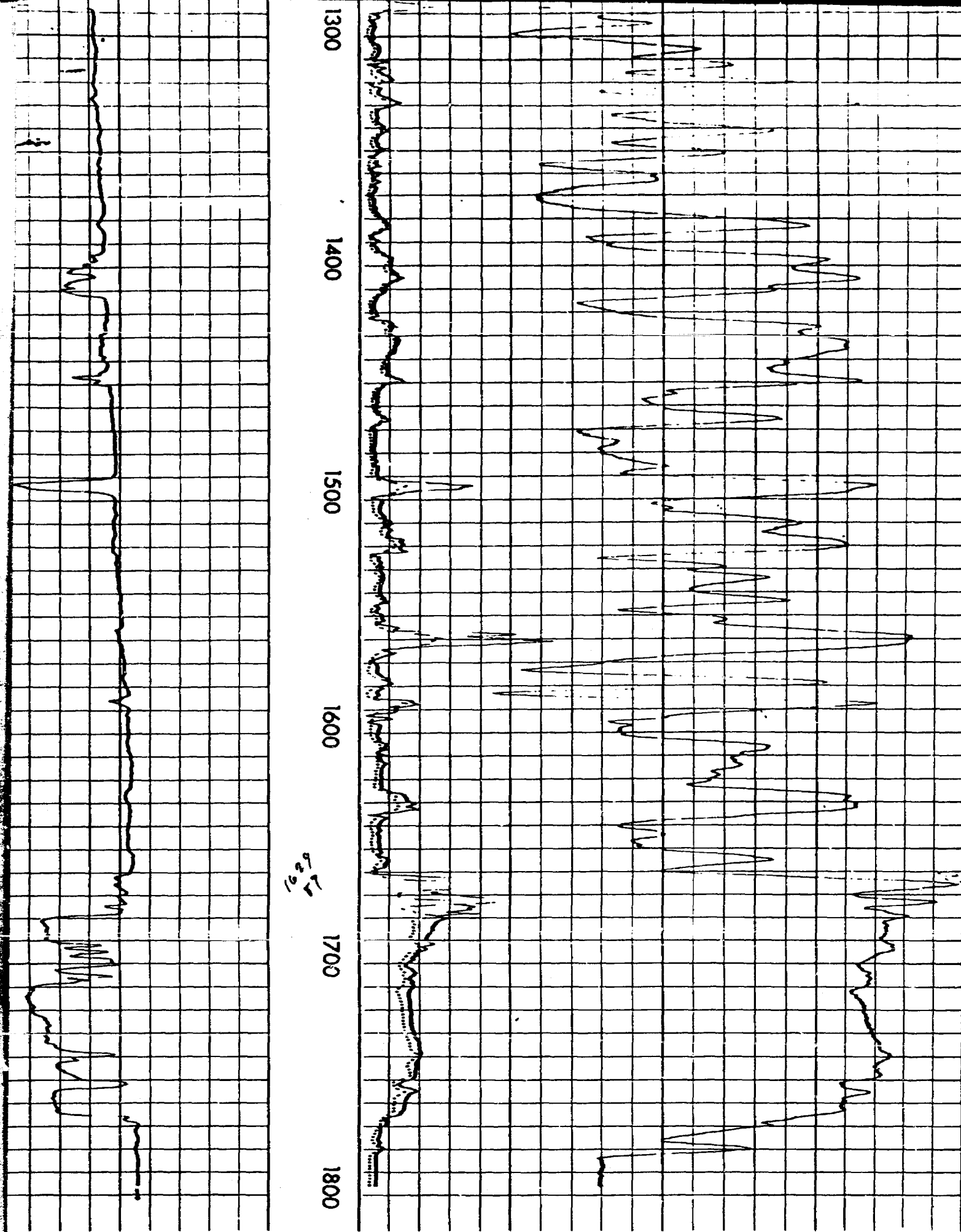
Case No. 6586

Exhibit No. 46



25





5'' = 100'			
		CONDUCTIVITY MILLIMHOS/M	
		400	200 0
			1000 400
		RESISTIVITY OHMS M ² /M	
POTENTIAL MILLIVOLTS			

Dockets Nos. 27-79 and 28-79 are tentatively set for hearing on July 25 and August 8, 1979. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: EXAMINER HEARING - WEDNESDAY - JULY 11, 1979

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

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

- CASE 6583: Application of Amoco Production Company for downhole commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of B.S. Mesa-Gallup and Basin-Dakota production in the wellbore of its Jicarilla Apache 102 Well No. 13 located in Unit B of Section 10, Township 26 North, Range 4 West.
- CASE 6584: Application of Texas Oil & Gas Corp. for an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Shugart State Co. Well No. 2 660 feet from the South line and 1930 feet from the East line of Section 16, Township 18 South, Range 31 East, to test the Wolfcamp through Mississippian formations, the E/2 of said Section 16 to be dedicated to the well.
- CASE 6574: (Continued from June 13, 1979, Examiner Hearing)
- Application of Texas Oil & Gas Corp. for an unorthodox gas well location and compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Wolfcamp through Morrow formations underlying the E/2 of Section 6, Township 17 South, Range 35 East, to be dedicated to a well to be drilled at an unorthodox location 660 feet from the South and East lines of said Section 6. 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. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.
- CASE 6563: (Continued from June 27, 1979, Examiner Hearing)
- Application of Roy L. McKay for a unit agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for his North Woolworth Ranch Unit Area, comprising 1,280 acres, more or less, of State lands in Township 23 South, Range 35 East.
- CASE 6585: 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 undesignated Fruitland and West Kutz-Pictured Cliffs production in the wellbores of its Paul Wells Nos. 1 and 2 located in Units G and C of Section 19, Township 27 North, Range 11 West.
- CASE 6586: 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 Conner-Fruitland and undesignated Pictured Cliffs production in the wellbores of the following wells: Big Field Well No. 2 in Unit C of Section 3; Big Field Well No. 5 in Unit P of Section 10; Dinero Well No. 1 in Unit H of Section 13; and Molly Pitcher Well No. 2 in Unit H of Section 14, all in Township 30 North, Range 14 West.
- CASE 6587: Application of Caribou Four Corners, Inc., for three unorthodox well locations, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox locations of the following wells in the Cha Cha-Gallup Pool: Kirtland Wells Nos. 3 and 4 located 730 feet from the North line and 2250 feet from the East line and 1450 feet from the North line and 595 feet from the East line, respectively, of Section 18, Township 29 North, Range 14 West; and Kirtland Well No. 2 260 feet from the North line and 2100 feet from the East line of Section 13, Township 29 North, Range 15 West.
- CASE 6588: Application of Caribou Four Corners, Inc., for a non-standard proration unit, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval for a 64.32-acre non-standard oil proration unit comprising the NW/4 NW/4 and that part of Lot 5 lying north of the San Juan River, all in Section 18, Township 29 North, Range 14 West, Cha Cha-Gallup Oil Pool.
- CASE 6589: Application of Atlantic Richfield Company for an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its State "BV" No. 2 Well 2109 feet from the North line and 1778 feet from the West line of Section 25, Township 17 South, Range 28 East, to test the Morrow formation, the N/2 of said Section 25 to be dedicated to the well.

CASE 6590: Application of Grace Petroleum Corporation for compulsory pooling and an unorthodox gas well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Morrow formation underlying Lots 9, 10, 15, and 16 and the SE/4 of Section 6, Township 21 South, Range 32 East, to be dedicated to a well to be drilled at an unorthodox location 4650 feet from the South line and 660 feet from the East line of said Section 6. Also to be considered will be the cost of drilling and completing said well and the allocation of the costs thereof as well as actual operating costs and charges for supervision. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 6591: Application of Exxon Corporation for vertical pool limit redefinition, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order extending the vertical limits of the Langlie Mattix Pool to include the lowermost 165 feet of the Seven Rivers formation and the concomitant contraction of the vertical limits of the Jalmat Gas Pool underlying the NE/4 of Section 2, Township 24 South, Range 36 East.

CASE 6592: Application of Maddox Energy Corporation for a dual completion, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion of its Malaga Well No. 1 located in Unit G of Section 3, Township 24 South, Range 28 East, to produce gas from the Atoka and Morrow formations through parallel strings of tubing.

CASE 6593: Application of Dyco Petroleum Corporation for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water in the San Andres, Glorieta and Tubb formations in the open-hole interval from 4894 feet to 8725 feet in its C. S. Stone Well No. 3 located in Unit F of Section 22, Township 15 South, Range 38 East, Medicine Rock-Devonian Pool.

CASE 6594: Application of Flag-Redfern Oil Co. for an exception to Order No. R-3221, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an exception to Order No. R-3221 to permit disposal of produced brine in an unlined surface pit located in Unit K, Section 2, Township 19 South, Range 31 East, Shugart Field.

CASE 6595: Application of Stevens Oil Company for compulsory pooling, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the San Andres formation underlying the NW/4 SW/4 of Section 30, Township 8 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. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 6270: (Reopened and Readvertised)

In the matter of Case 6270 being reopened pursuant to the provisions of Order No. R-5771 which order created the South Peterson-Fusselman Pool, Roosevelt County, New Mexico, and provided for 80-acre spacing. All interested parties may appear and show cause why said pool should not be developed on 40-acre spacing units.

Docket No. 26-79

DOCKET: EXAMINER HEARING - WEDNESDAY - JULY 18, 1979

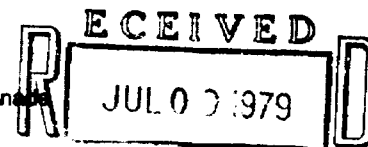
9 A.M. - OIL CONSERVATION DIVISION CONFERENCE ROOM,
STATE LAND OFFICE BUILDING, SANTA FE, NEW MEXICO

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

- ALLOWABLE:
- (1) Consideration of the allowable production of gas for August, 1979, from fifteen prorated pools in Lea, Eddy, and Chaves Counties, New Mexico.
 - (2) Consideration of the allowable production of gas for August, 1979, from four prorated pools in San Juan, Rio Arriba, and Sandoval Counties, New Mexico.



Casper Division
Production, U.S. & Canada



OIL CONSERVATION DIVISION
SANTA FE

P.O. Box 2659
Casper, Wyoming 82602
Telephone 307/265-7693

Case 6586

July 6, 1979

New Mexico Oil Conservation Division
P.O. Box 2088
Santa Fe, New Mexico 87501

Attn: Mr. Joe D. Ramey, Division Director

Dear Sir:

Enclosed herewith please find a Waiver of Objection and Consent executed by Marathon Oil Company for the down hole commingling of production from the Dinero #1 Well, San Juan County, New Mexico.

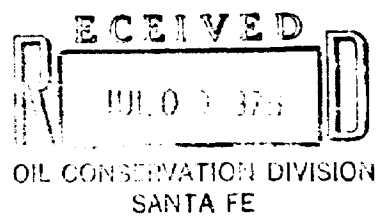
Marathon waivers any objection to the subject Application.

Sincerely,

Jesse E. O'Neal
Jesse E. O'Neal

JEO:ss
Encl.

cc: Dugan Prod. Corp.



WAIVER OF OBJECTION AND CONSENT
TO THE DOWNHOLE COMMINGLING OF
THE DINERO #1 WELL

The undersigned, as an operator of a lease offsetting the NE/4 of Section 13, Township 30 North, Range 14 West, N.M.P.M., San Juan County, New Mexico, does hereby acknowledge receipt of the Application for Downhole Commingling of the Dinero #1 Well.

The undersigned states that it waives any objection to this Application, and voluntarily consents to the commingling of the Dinero #1 Well as stated in the above mentioned Application.

Dated this _____ day of June, 1979.

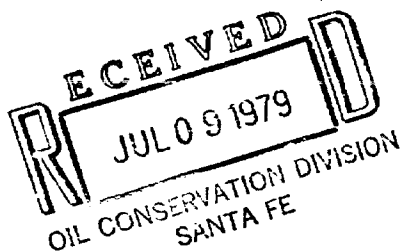
Marathon Oil Company
Company Name

By: Jesse E. O'Neal

Title: Acting District Manager

Address: P.O. Box 2659

Casper, Wyoming 82602



Please send one executed copy to Joe D. Ramey, Division Director, New Mexico Oil Conservation Division, P. O. Box 2088, Santa Fe, NM 87501, and return one executed copy to the Applicant. The remaining copy is for your files.



WAIVER OF OBJECTION AND CONSENT
TO THE DOWNHOLE COMMINGLING OF
THE MOLLY PITCHER #2 WELL

OIL CONSERVATION DIVISION
SANTA FE

The undersigned, as an operator of a lease offsetting the NE/4
of Section 14, Township 30 North, Range 14 West, N.M.P.M., San Juan County,
New Mexico, does hereby acknowledge receipt of the Application for Downhole
Commingling of the Molly Pitcher #2 Well.

The undersigned states that it waives any objection to this
Application, and voluntarily consents to the commingling of the Molly Pitcher #2
Well as stated in the above mentioned Application.

Dated this 19 day of June, 1979.

Southland Royalty Co.
Company Name

By: CC Parson

Title: District Engineer

Address: P.O. drawer 570
Farmington, N.M.

Please send one executed copy to Joe D. Ramey, Division Director, New Mexico
Oil Conservation Division, P. O. Box 2088, Santa Fe, N.M. 87501, and return
one executed copy to the Applicant. The remaining copy is for your files.

WAIVER OF OBJECTION AND CONSENT
TO THE DOWNHOLE COMINGLING OF
THE MOLLY PITCHER #2 WELL

The undersigned, as an operator of a lease offsetting the NE/4 of Section 14, Township 30 North, Range 14 West, N.M.P.M., San Juan County, New Mexico, does hereby acknowledge receipt of the Application for Downhole Comingling of the Molly Pitcher #2 Well.

The undersigned states that it waives any objection to this Application, and voluntarily consents to the comingling of the Molly Pitcher #2 Well as stated in the above mentioned Application.

Dated this 19th day of June, 1979.

ODESSA NATURAL CORPORATION

Company Name

By: John J. Strojek

Title: DIRECTOR - PRODUCTION DEPARTMENT

Address: P. O. Box 3908, Odessa, Texas 79760

RECEIVED
JUN 21 1979
OIL CONSERVATION DIVISION

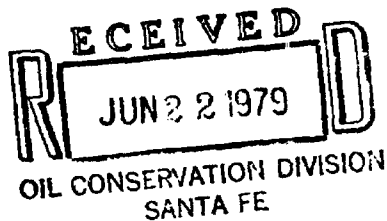
Please send one executed copy to Joe D. Ramey, Division Director, New Mexico Oil Conservation Division, P. O. Box 2088, Santa Fe, N.M. 87501, and return one executed copy to the Applicant. The remaining copy is for your files.

WAIVER OF OBJECTION AND CONSENT
TO THE DOWNHOLE COMMINGLING OF
THE MOLLY PITCHER #2 WELL

The undersigned, as an operator of a lease offsetting the NE/4
of Section 14, Township 30 North, Range 14 West, N.M.P.M., San Juan County,
New Mexico, does hereby acknowledge receipt of the Application for Downhole
Commingle of the Molly Pitcher #2 Well.

The undersigned states that it waives any objection to this
Application, and voluntarily consents to the commingling of the Molly Pitcher #2
Well as stated in the above mentioned Application.

Dated this 21st. day of June, 1979.



El Paso Natural Gas Company
Company Name

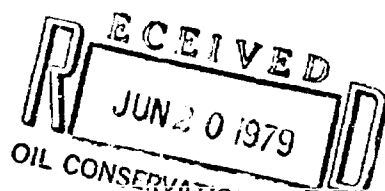
By: John A. Ahlm

Title: Regional Land Manager

Address: Post Office Box 990

Farmington, New Mexico 87401

Please send one executed copy to Joe D. Ramey, Division Director, New Mexico
Oil Conservation Division, P. O. Box 2088, Santa Fe, N.M. 87501, and return
one executed copy to the Applicant. The remaining copy is for your files.



WAIVER OF OBJECTION AND CONSENT
TO THE DOWNHOLE COMMINGLING OF
THE DINERO #1 WELL

The undersigned, as an operator of a lease offsetting the NE/4 of Section 13, Township 30 North, Range 14 West, N.M.P.M., San Juan County, New Mexico, does hereby acknowledge receipt of the Application for Downhole Commingling of the Dinero #1 Well.

The undersigned states that it waives any objection to this Application, and voluntarily consents to the commingling of the Dinero #1 Well as stated in the above mentioned Application.

Dated this 19 day of June, 1979.

Southland Royalty Co.
Company Name

By: CC Parsons

Title: District Engineer

Address: P.O. Drawer 570
Farmington, N.M.

Please send one executed copy to Joe D. Ramey, Division Director, New Mexico Oil Conservation Division, P. O. Box 2088, Santa Fe, NM 87501, and return one executed copy to the Applicant. The remaining copy is for your files.

WAIVER OF OBJECTION AND CONSENT
TO THE DOWNHOLE COMINGLING OF
THE DINERO #1 WELL

The undersigned, as an operator of a lease offsetting the NE/4 of Section 13, Township 30 North, Range 14 West, N.M.P.M., San Juan County, New Mexico, does hereby acknowledge receipt of the Application for Downhole Comingling of the Dinero #1 Well.

The undersigned states that it waives any objection to this Application, and voluntarily consents to the comingling of the Dinero #1 Well as stated in the above mentioned Application.

Dated this _____ day of June, 1979.

ODESSA NATURAL CORPORATION

Company Name

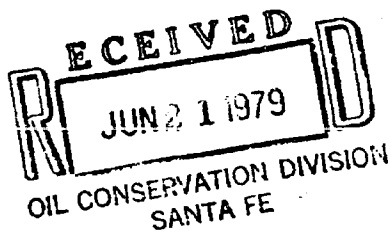
By: _____

John J. Strjek
DIRECTOR - PRODUCTION DEPARTMENT

Title: _____

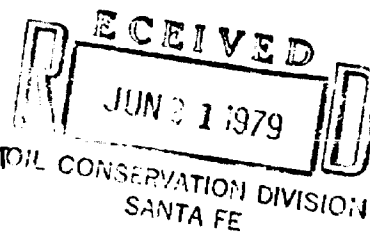
P. O. Box 3908, Odessa, Texas 79760

Address: _____



Please send one executed copy to Joe D. Ramey, Division Director, New Mexico Oil Conservation Division, P. O. Box 2088, Santa Fe, NM 87501, and return one executed copy to the Applicant. The remaining copy is for your files.

WAIVER OF OBJECTION AND CONSENT
TO THE DOWNHOLE COMMINGLING OF
THE BIG FIELD #2 WELL



The undersigned, as an operator of a lease offsetting the NW/4 of Section 3, Township 30 North, Range 14 West, N.M.P.M., San Juan County, New Mexico, does hereby acknowledge receipt of the Application for Downhole Commingling of the Big Field #2 Well.

The undersigned states that it waives any objection to this Application, and voluntarily consents to the Commingling of the Big Field #2 Well as stated in the above mentioned Application.

Dated this 19 day of June, 1979.

Company Name
Marshall & Winston, Inc.
By: [Signature]
William S. Marshall, President
Title: _____
Address: P.O. Box 874
Midland, Texas, 79702

Please send one executed copy to Joe D. Ramey, Division Director, New Mexico Oil Conservation Division, P. O. Box 2088, Santa Fe, N.M. 87501 and return one executed copy to the Applicant. The remaining copy is for your files.

WAIVER OF OBJECTION AND CONSENT
TO THE DOWNHOLE COMMINGLING OF
THE BIG FIELD #2 WELL

The undersigned, as an operator of a lease offsetting the NW/4 of Section 3, Township 30 North, Range 14 West, N.M.P.M., San Juan County, New Mexico, does hereby acknowledge receipt of the Application for Downhole Commingling of the Big Field #2 Well.

The undersigned states that it waives any objection to this Application, and voluntarily consents to the Commingling of the Big Field #2 Well as stated in the above mentioned Application.

Dated this 21st. day of June, 1979.

El Paso Natural Gas Company

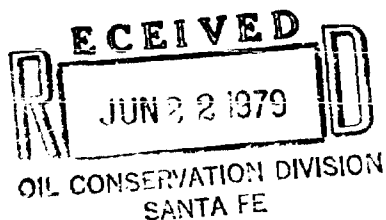
Company Name

By: John A. Ahlm

Title: Regional Land Manager

Address: Post Office Box 990

Farmington, New Mexico 87401



Please send one executed copy to Joe D. Ramey, Division Director, New Mexico Oil Conservation Division, P. O. Box 2088, Santa Fe, N.M. 87501 and return one executed copy to the Applicant. The remaining copy is for your files.

WAIVER OF OBJECTION AND CONSENT
TO THE DOWNHOLE COMMINGLING OF
THE BIG FIELD #5 WELL

The undersigned, as an operator of a lease offsetting the SE/4 of
Section 10, Township 30 North, Range 14 West, N.M.P.M., San Juan County,
New Mexico, does hereby acknowledge receipt of the Application for
Downhole Commingling of the Big Field #5 Well.

The undersigned states that it waives any objection to this
Application, and voluntarily consents to the commingling of the Big
Field #5 Well as stated in the above mentioned Application.

Dated this 21st day of June, 1979.

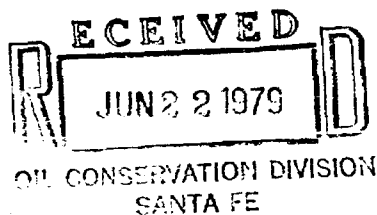
El Paso Natural Gas Company
Company Name

By: John A. Ahlm *John A. Ahlm*

Title: Regional Land Manager

Address: Post Office Box 990

Farmington, New Mexico 87401



Please send one executed copy to Joe D. Ramey, Division Director, New Mexico
Oil Conservation Division, P. O. Box 2088, Santa Fe, N.M. 87501, and return
one executed copy to the Applicant. The remaining copy is for your files.

Tenneco Oil
A Tenneco Company

Penthouse
720 South Colorado Blvd.
Denver, Colorado 80222
(303) 758-7130



Case 6586

June 21, 1979

New Mexico Oil Conservation Division
P.O. Box 2088
Santa Fe, New Mexico 87501

Attention: Mr. Joe D. Ramey
Division Director

Re: Approval of Downhole Commingling
Molly Pitcher #2
Big Field #5

Gentlemen:

Please find attached waivers executed by Tenneco Oil Company indicating we have no objection to the granting of permission to commingle the stated producing zones in the captioned wells.

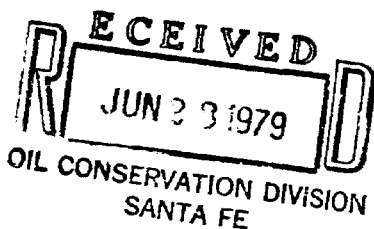
Very truly yours,

TENNECO OIL COMPANY

J. M. Lacey
Division Production Manager

JML:RJG:sh

Attachment



WAIVER OF OBJECTION AND CONSENT
TO THE DOWNHOLE COMINGLING OF
THE MOLLY PITCHER #2 WELL

The undersigned, as an operator of a lease offsetting the NE/4
of Section 14, Township 30 North, Range 14 West, N.M.P.M., San Juan County,
New Mexico, does hereby acknowledge receipt of the Application for Downhole
Comingling of the Molly Pitcher #2 Well.

The undersigned states that it waives any objection to this
Application, and voluntarily consents to the comingling of the Molly Pitcher #2
Well as stated in the above mentioned Application.

Dated this _____ day of June, 1979.

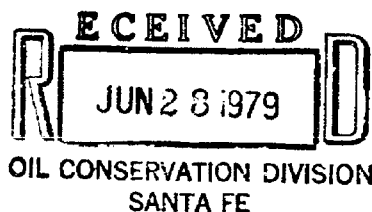
Tenneco Oil Company E & P
Company Name

By: _____

Title: _____ Division Production Manager

Address: _____ Penthouse, 720 S. Colorado Blvd.

Denver, Colorado 80222



Please send one executed copy to Joe D. Ramey, Division Director, New Mexico
Oil Conservation Division, P. O. Box 2088, Santa Fe, N.M. 87501, and return
one executed copy to the Applicant. The remaining copy is for your files.

WAIVER OF OBJECTION AND CONSENT
TO THE DOWNHOLE COMMINGLING OF
THE BIG FIELD #5 WELL

The undersigned, as an operator of a lease offsetting the SE/4 of Section 10, Township 30 North, Range 14 West, N.M.P.M., San Juan County, New Mexico, does hereby acknowledge receipt of the Application for Downhole Commingling of the Big Field #5 Well.

The undersigned states that it waives any objection to this Application, and voluntarily consents to the commingling of the Big Field #5 Well as stated in the above mentioned Application.

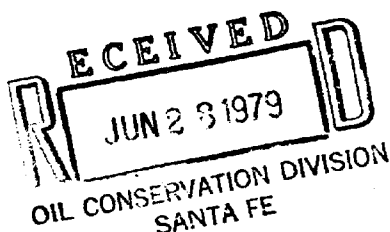
Dated this _____ day of June, 1979.

Tenneco Oil Company E & P
Company Name

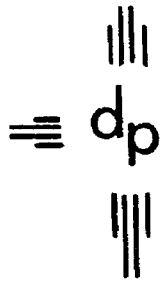
By: _____

Title: Division Production Manager

Address: Penthouse, 720 South Colorado Blvd.
Denver, Colorado 80222

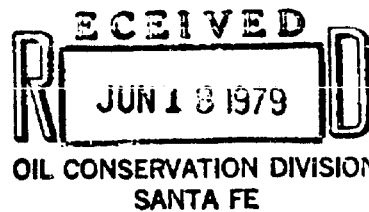


Please send ~~one~~ executed copy to Joe D. Ramey, Division Director, New Mexico Oil Conservation Division, P. O. Box 2088, Santa Fe, N.M. 87501, and return one executed copy to the Applicant. The remaining copy is for your files.



dugan production corp.

June 14, 1979



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

RE: Application for Downhole Commingling of the
Molly Pitcher #2 Well (Fruitland and Pictured
Cliffs) in San Juan County, New Mexico

Dear Mr. Ramey:

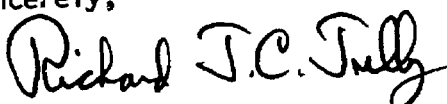
Enclosed are the following instruments concerning the Application for
Approval of Downhole Commingling by Dugan Production Corp. for the
Molly Pitcher #2 Well located in the NE/4 of Section 14, Township 30
North, Range 14 West, N.M.P.M., San Juan County, New Mexico.

1. Three copies of the Application.
2. Three copies of a Certificate of Mailing stating that 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 notified of this
Application.

We would appreciate it if you will place this Application for hearing
on July 11, 1979.

Thank you for your assistance and cooperation in this matter. Please
advise if you need further information.

Sincerely,


Richard T. C. Tully
General Counsel

RTCT/sak

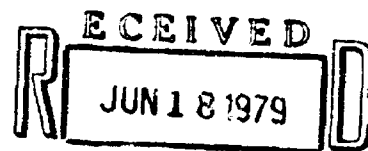
Enclosures

Distribution

1. Al R. Kendrick
Supervisor, District III Office
Energy and Minerals Dept.
New Mexico Oil Conservation Division
1000 Rio Brazos Road
Aztec, N.M. 87410
2. Phil T. McGrath
District Engineer
U. S. Geological Survey
Box 959
Farmington, N.M. 87401
3. Tenneco Oil Company
720 South Colorado Blvd.
Penthouse
Denver, CO 80222
Attn: J. F. Gavlick
Division Landman
4. Mountain Fuel Supply Company
Box 11368
Salt Lake City, UT 84139
Attn: R. E. Pittam
Staff Landman
5. El Paso Natural Gas Company
Box 1492
El Paso, TX 79978
Attn: D. N. Canfield
Director of Land
6. Southland Royalty Company
Drawer 570
Farmington, N.M. 87401
Attn: Larry Van Ryan
District Superintendent
7. Odessa Natural Corporation
Box 3908
Odessa, TX 79760
Attn: Jack R. Mundell
Director-Land Department

OIL CONSERVATION DIVISION
STATE OF NEW MEXICO

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



OIL CONSERVATION DIVISION
SANTA FE

Case 6586

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, Richard T. C. Tully, hereby makes application for approval of downhole commingling in the well bore of the Molly Pitcher #2 Well in San Juan County, New Mexico.

The Applicant further states:

1. The Operator of the Molly Pitcher #2 Well is the Applicant Dugan Production Corp.

2. The Molly Pitcher #2 Well is located on federal oil and gas lease NM 628 insofar as it covers the following described lands:

Township 30 North, Range 14 West, N.M.P.M.

Section 14: NE/4 (Conner Fruitland Pool Extension)

Section 14: NE/4 (Wildcat Pictured Cliffs Pool)

San Juan County, New Mexico

3. The legal location of the well is as follows:

Township 30 North, Range 14 West, N.M.P.M.

Section 14: 1590' FNL - 790' FEL (Unit Letter H)

San Juan County, New Mexico

4. The Molly Pitcher #2 Well is not currently dually completed in the Conner Fruitland Pool Extension and the Wildcat Pictured Cliffs Pool.

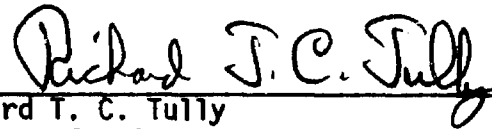
5. The Molly Pitcher #2 Well is capable of only low marginal production from the Conner Fruitland Pool Extension, and the well is also only capable of low marginal production from the Wildcat Pictured Cliffs Pool.

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 from each of these Pools, thereby preventing waste, and the commingling will not violate correlative rights.

WHEREFORE, the Applicant requests this Application be set for hearing on July 11, 1979, and that after this hearing the New Mexico Oil Conservation Division grant this Application by giving approval to the downhole commingling of the Molly Pitcher #2 Well in San Juan County, New Mexico.

Respectfully Submitted,



Richard T. C. Tully
Attorney for Applicant
P. O. Box 234
Farmington, N.M. 87401

CERTIFICATE OF MAILING

I certify that I mailed a copy of the Application for Downhole Commingling of the Molly Pitcher #2 Well in San Juan County, New Mexico to 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 on the 14th day of June, 1979.



Richard T. C. Tully
Attorney for Applicant

OFFSETTING LEASES AND OPERATORS

SAN JUAN COUNTY, NEW MEXICO

- A. USA NM 628 (Same Lease)
Township 30 North, Range 14 West, N.M.P.M.
Section 14: SE/4
Operator: Dugan Production Corp.
Box 234
Farmington, N.M. 87401
- B. USA NM 26052
Township 30 North, Range 14 West, N.M.P.M.
Section 14: NW/4
Operator: Dugan Production Corp.
Box 234
Farmington, N.M. 87401
- C. USA NM 2555
Township 30 North, Range 14 West, N.M.P.M.
Section 14: W/2 SW/4
Operator: Dugan Production Corp.
Box 234
Farmington, N.M. 87401
- D. USA NM 15272
Township 30 North, Range 14 West, N.M.P.M.
Section 14: SW/4 SW/4
Operator: Dugan Production Corp.
Box 234
Farmington, N.M. 87401
- Mountain Fuel Supply Company
Box 11368
Salt Lake City, UT 84139
Attn: R. E. Pittam
Staff Landman
- Tenneco Oil Company
720 South Colorado Blvd.
Penthouse
Denver, CO 80222
Attn: J. F. Gavlick
Division Landman
- E. USA NM 13213
Township 30 North, Range 14 West, N.M.P.M.
Section 14: NW/4 SW/4
Operator: Dugan Production Corp.
Box 234
Farmington, N.M. 87401
- Mountain Fuel Supply Company
Box 11368
Salt Lake City, UT 84139
Attn: R. E. Pittam
Staff Landman
- F. USA NM 24467
Township 30 North, Range 14 West, N.M.P.M.
Section 11: SW/4
Operator: El Paso Natural Gas Company
Box 1492
El Paso, TX 79978
Attn: D. N. Canfield
Director of Land

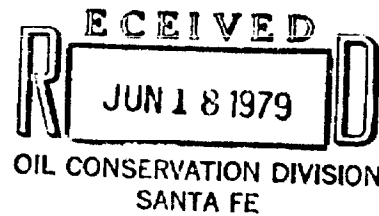
G. Unleased Federal Acreage
Township 30 North, Range 14 West, N.M.P.M.
Section 11: SE/4

H. USA NM 28760
Township 30 North, Range 14 West, N.M.P.M.
Section 12: SW/4
Operator: Odessa Natural Corporation
Box 3908
Odessa, TX 79760
Attn: Jack R. Mundell
Director-Land Department

I. USA NM 6899
Township 30 North, Range 14 West, N.M.P.M.
Section 13: W/2
Operator: Southland Royalty Company
Drawer 870
Farmington, N.M. 87401
Attn: Larry Van Ryan
District Superintendent

OIL CONSERVATION DIVISION
STATE OF NEW MEXICO

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



APPLICATION

Case 6586

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, Richard T. C. Tully, hereby makes application for approval of downhole commingling in the well bore of the Molly Pitcher #2 Well in San Juan County, New Mexico.

The Applicant further states:

1. The Operator of the Molly Pitcher #2 Well is the Applicant Dugan Production Corp.
2. The Molly Pitcher #2 Well is located on federal oil and gas lease NM 628 insofar as it covers the following described lands:

Township 30 North, Range 14 West, N.M.P.M.
Section 14: NE/4 (Conner Fruitland Pool Extension)
Section 14: NE/4 (Wildcat Pictured Cliffs Pool)
San Juan County, New Mexico

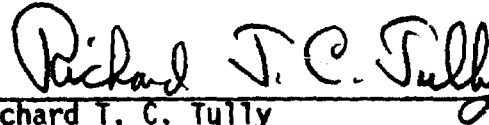
3. The legal location of the well is as follows:

Township 30 North, Range 14 West, N.M.P.M.
Section 14: 1590' FNL - 790' FEL (Unit Letter H)
San Juan County, New Mexico

4. The Molly Pitcher #2 Well is not currently dually completed in the Conner Fruitland Pool Extension and the Wildcat Pictured Cliffs Pool.
5. The Molly Pitcher #2 Well is capable of only low marginal production from the Conner Fruitland Pool Extension, and the well is also only capable of low marginal production from the Wildcat Pictured Cliffs 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 from each of these Pools, thereby preventing waste, and the commingling will not violate correlative rights.

WHEREFORE, the Applicant requests this Application be set for hearing on July 11, 1979, and that after this hearing the New Mexico Oil Conservation Division grant this Application by giving approval to the downhole commingling of the Molly Pitcher #2 Well in San Juan County, New Mexico.

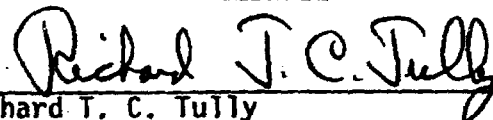
Respectfully Submitted,



Richard T. C. Tully
Attorney for Applicant
P. O. Box 234
Farmington, N.M. 87401

CERTIFICATE OF MAILING

I certify that I mailed a copy of the Application for Downhole Commingling of the Molly Pitcher #2 Well in San Juan County, New Mexico to 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 on the 14th day of June, 1979.



Richard T. C. Tully
Attorney for Applicant

OFFSETTING LEASES AND OPERATORS

SAN JUAN COUNTY, NEW MEXICO

- A. USA NM 628 (Same Lease)
Township 30 North, Range 14 West, N.M.P.M.
Section 14: SE/4
Operator: Dugan Production Corp.
Box 234
Farmington, N.M. 87401
- B. USA NM 26052
Township 30 North, Range 14 West, N.M.P.M.
Section 14: NW/4
Operator: Dugan Production Corp.
Box 234
Farmington, N.M. 87401
- C. USA NM 2555
Township 30 North, Range 14 West, N.M.P.M.
Section 14: W/2 SW/4
Operator: Dugan Production Corp.
Box 234
Farmington, N.M. 87401
- D. USA NM 15272
Township 30 North, Range 14 West, N.M.P.M.
Section 14: SW/4 SW/4
Operator: Dugan Production Corp.
Box 234
Farmington, N.M. 87401
- Mountain Fuel Supply Company
Box 11368
Salt Lake City, UT 84139
Attn: R. E. Pittam
Staff Landman
- Tenneco Oil Company
720 South Colorado Blvd.
Penthouse
Denver, CO 80222
Attn: J. F. Gavlick
Division Landman
- E. USA NM 13213
Township 30 North, Range 14 West, N.M.P.M.
Section 14: NW/4 SW/4
Operator: Dugan Production Corp.
Box 234
Farmington, N.M. 87401
- Mountain Fuel Supply Company
Box 11368
Salt Lake City, UT 84139
Attn: R. E. Pittam
Staff Landman
- F. USA NM 24467
Township 30 North, Range 14 West, N.M.P.M.
Section 11: SW/4
Operator: El Paso Natural Gas Company
Box 1492
El Paso, TX 79978
Attn: D. N. Canfield
Director of Land

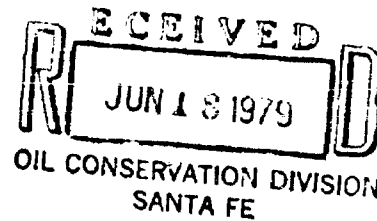
G. Unleased Federal Acreage
Township 30 North, Range 14 West, N.M.P.M.
Section 11: SE/4

H. USA NM 28760
Township 30 North, Range 14 West, N.M.P.M.
Section 12: SW/4
Operator: Odessa Natural Corporation
Box 3908
Odessa, TX 79760
Attn: Jack R. Mundell
Director-Land Department

I. USA NM 6899
Township 30 North, Range 14 West, N.M.P.M.
Section 13: W/2
Operator: Southland Royalty Company
Drawer 870
Farmington, N.M. 87401
Attn: Larry Van Ryan
District Superintendent

OIL CONSERVATION DIVISION
STATE OF NEW MEXICO

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



APPLICATION

Case 6586

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2. The Molly Pitcher #2 Well is located on federal oil and gas lease NM 628 insofar as it covers the following described lands:

Township 30 North, Range 14 West, N.M.P.M.
Section 14: NE/4 (Conner Fruitland Pool Extension)
Section 14: NE/4 (Wildcat Pictured Cliffs Pool)
San Juan County, New Mexico

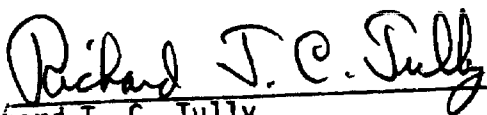
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Section 14: 1590' FNL - 790' FEL (Unit Letter H)
San Juan County, New Mexico

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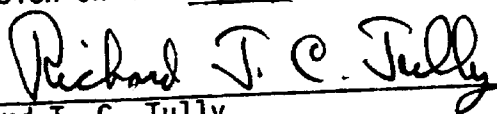
WHEREFORE, the Applicant requests this Application be set for hearing on July 11, 1979, and that after this hearing the New Mexico Oil Conservation Division grant this Application by giving approval to the downhole commingling of the Molly Pitcher #2 Well in San Juan County, New Mexico.

Respectfully Submitted,


Richard T. C. Tully
Attorney for Applicant
P. O. Box 234
Farmington, N.M. 87401

CERTIFICATE OF MAILING

I certify that I mailed a copy of the Application for Downhole Commingling of the Molly Pitcher #2 Well in San Juan County, New Mexico to 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 on the 14 day of June, 1979.


Richard T. C. Tully
Attorney for Applicant

OFFSETTING LEASES AND OPERATORS

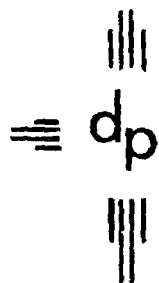
SAN JUAN COUNTY, NEW MEXICO

- A. USA NM 628 (Same Lease)
Township 30 North, Range 14 West, N.M.P.M.
Section 14: SE/4
Operator: Dugan Production Corp.
Box 234
Farmington, N.M. 87401
- B. USA NM 26052
Township 30 North, Range 14 West, N.M.P.M.
Section 14: NW/4
Operator: Dugan Production Corp.
Box 234
Farmington, N.M. 87401
- C. USA NM 2555
Township 30 North, Range 14 West, N.M.P.M.
Section 14: W/2 SW/4
Operator: Dugan Production Corp.
Box 234
Farmington, N.M. 87401
- D. USA NM 15272
Township 30 North, Range 14 West, N.M.P.M.
Section 14: SW/4 SW/4
Operator: Dugan Production Corp.
Box 234
Farmington, N.M. 87401
- Mountain Fuel Supply Company
Box 11368
Salt Lake City, UT 84139
Attn: R. E. Pittam
Staff Landman
- Tenneco Oil Company
720 South Colorado Blvd.
Penthouse
Denver, CO 80222
Attn: J. F. Gavlick
Division Landman
- E. USA NM 13213
Township 30 North, Range 14 West, N.M.P.M.
Section 14: NW/4 SW/4
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Box 234
Farmington, N.M. 87401
- Mountain Fuel Supply Company
Box 11368
Salt Lake City, UT 84139
Attn: R. E. Pittam
Staff Landman
- F. USA NM 24467
Township 30 North, Range 14 West, N.M.P.M.
Section 11: SW/4
Operator: El Paso Natural Gas Company
Box 1492
El Paso, TX 79978
Attn: D. N. Canfield
Director of Land

G. Unleased Federal Acreage
Township 30 North, Range 14 West, N.M.P.M.
Section 11: SE/4

H. USA NM 28760
Township 30 North, Range 14 West, N.M.P.M.
Section 12: SW/4
Operator: Odessa Natural Corporation
Box 3908
Odessa, TX 79760
Attn: Jack R. Mundell
Director-Land Department

I. USA NM 6899
Township 30 North, Range 14 West, N.M.P.M.
Section 13: W/2
Operator: Southland Royalty Company
Drawer 870
Farmington, N.M. 87401
Attn: Larry Van Ryan
District Superintendent



dugan production corp.

June 14, 1979



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

RE: Application for Downhole Commingling of
The Dinero #1 Well (Fruitland-Pictured Cliffs)
in San Juan County, New Mexico

Dear Mr. Ramey:

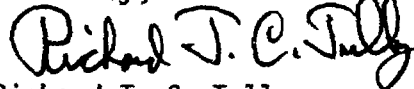
Enclosed are the following instruments concerning the Application for Approval of Downhole Commingling by Dugan Production Corp. for the Dinero #1 Well located in the NE/4 of Section 13, Township 30 North, Range 14 West, N.M.P.M., San Juan County, New Mexico.

1. Three Copies of the Application.
2. Three copies of a Certificate of Mailing stating that 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 notified of this Application.

We would appreciate it if you will place this Application for hearing on July 11, 1979.

Thank you for your assistance and cooperation in this matter. Please advise if you need further information.

Sincerely,


Richard T. C. Tully
General Counsel

RTCT/sak

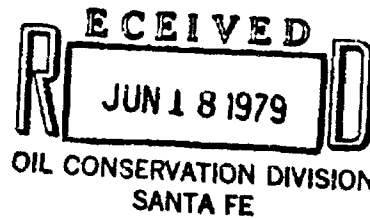
Enclosures

DISTRIBUTION

1. Al R. Kendrick
Supervisor, District III Office
Energy and Minerals Dept.
1000 Rio Brazos Road
Aztec, NM 87410
2. Phil T. McGrath
District Engineer
U. S. Geological Survey
Box 959
Farmington, N.M. 87401
3. Exxon Company, U.S.A.
Box 120
Denver, CO 80201
Attn: L. A. Dodd
Division Landman
4. Southland Royalty Company
Drawer 570
Farmington, N.M. 87401
Attn: Larry Van Ryan
District Superintendent
5. Marathon Oil Company
Box 120
Casper, Wyoming 82602
Attn: J. R. Chidley
Division Landman
6. Odessa Natural Corporation
Box 3908
Odessa, TX 79760
Attn: Jack R. Mundell
Director-Land Department

OIL CONSERVATION DIVISION
STATE OF NEW MEXICO

In the Matter of the Application of
Dugan Production Corp. for Downhole
Commingling of the Dinero #1 Well
in San Juan County, New Mexico



Case 6586

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, Richard T. C. Tully, hereby makes application for approval of downhole commingling in the well bore of the Dinero #1 Well in San Juan County, New Mexico.

The Applicant further states:

1. The Operator of the Dinero #1 Well is the Applicant Dugan Production Corp.

2. The Dinero #1 Well is located on federal oil and gas lease SF 079070 insofar as it covers the following described lands:

Township 30 North, Range 14 West, N.M.P.M.
Section 13: NE/4 (Conner Fruitland Pool Extension)
Section 13: NE/4 (Wildcat Pictured Cliffs Pool)
San Juan County, New Mexico

3. The legal location of the well is as follows:

Township 30 North, Range 14 West, N.M.P.M.
Section 13: 1460' FNL - 810' FE1 (Unit Letter H)
San Juan County, New Mexico

4. The Dinero #1 Well is not currently dually completed in the Conner Fruitland Pool Extension and the Wildcat Pictured Cliffs Pool.

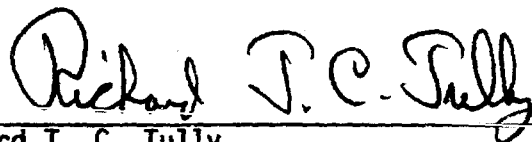
5. The Dinero #1 Well is capable of only low marginal production from the Conner Fruitland Pool Extension, and the well is also only capable of low marginal production from the Wildcat Pictured Cliffs Pool.

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 from each of these Pools, thereby preventing waste, and the commingling will not violate correlative rights.

WHEREFORE, the Applicant requests this Application be set for hearing on July 11, 1979, and that after this hearing the New Mexico Oil Conservation Division grant this Application by giving approval to the downhole commingling of the Dinero #1 Well in San Juan County, New Mexico.

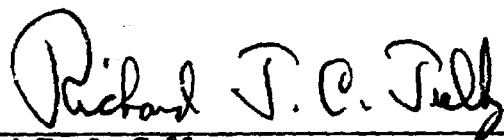
Respectfully submitted,



Richard T. C. Tully
Attorney for Applicant
P. O. Box 234
Farmington, N.M. 87401

CERTIFICATE OF MAILING

I certify that I mailed a copy of the Application for Downhole Commingling of the Dinero #1 Well in San Juan County, New Mexico to 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 on the 14 day of June, 1979.



Richard T. C. Tully
Attorney for Applicant

OFFSETTING LEASES AND OPERATORS

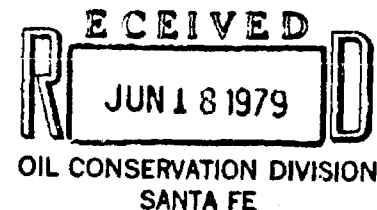
SAN JUAN COUNTY, NEW MEXICO

- A. USA SF 079070 (Same Lease)
Township 30 North, Range 14 West, N.M.P.M.
Section 12: SE/4
Section 13: SE/4
Operator: Dugan Production Corp.
Box 234
Farmington, N.M. 87401

Exxon Company, U.S.A.
Box 120
Denver, CO 80201
Attn: L. A. Dodd
Division Landman
- B. USA NM 6899
Township 30 North, Range 14 West, N.M.P.M.
Section 13: W/2
Operator: Southland Royalty Company
Drawer 870
Farmington, N.M. 87401
Attn: Larry Van Ryan
District Superintendent
- C. USA NM 28760
Township 30 North, Range 14 West, N.M.P.M.
Section 12: SW/4
Operator: Odessa Natural Corporation
Box 3908
Odessa, TX 79760
Attn: Jack R. Mundell
Director-Land Department
- D. USA NM 09867-A
Township 30 North, Range 13 West, N.M.P.M.
Section 7: SW/4
Section 18: W/2
Operator: Marathon Oil Company
Box 120
Casper, Wyoming 82602
Attn: J. R. Chidley
Division Landman

OIL CONSERVATION DIVISION
STATE OF NEW MEXICO

In the Matter of the Application of
Dugan Production Corp. for Downhole
Commingling of the Dinero #1 Well
in San Juan County, New Mexico



APPLICATION

Case 6586

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, Richard T. C. Tully, hereby makes application for approval of downhole commingling in the well bore of the Dinero #1 Well in San Juan County, New Mexico.

The Applicant further states:

1. The Operator of the Dinero #1 Well is the Applicant Dugan Production Corp.

2. The Dinero #1 Well is located on federal oil and gas lease SF 079070 insofar as it covers the following described lands:

Township 30 North, Range 14 West, N.M.P.M.
Section 13: NE/4 (Conner Fruitland Pool Extension)
Section 13: NE/4 (Wildcat Pictured Cliffs Pool)
San Juan County, New Mexico

3. The legal location of the well is as follows:

Township 30 North, Range 14 West, N.M.P.M.
Section 13: 1460' FNL - 810' FE1 (Unit Letter H)
San Juan County, New Mexico

4. The Dinero #1 Well is not currently dually completed in the Conner Fruitland Pool Extension and the Wildcat Pictured Cliffs Pool.

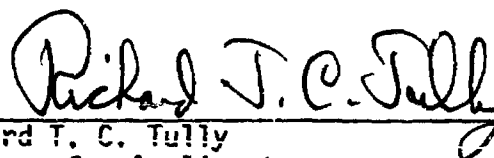
5. The Dinero #1 Well is capable of only low marginal production from the Conner Fruitland Pool Extension, and the well is also only capable of low marginal production from the Wildcat Pictured Cliffs Pool.

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7. The proposed commingling from the above Pools will result in the recovery of additional hydrocarbons from each of these Pools, thereby preventing waste, and the commingling will not violate correlative rights.

WHEREFORE, the Applicant requests this Application be set for hearing on July 11, 1979, and that after this hearing the New Mexico Oil Conservation Division grant this Application by giving approval to the downhole commingling of the Dinero #1 Well in San Juan County, New Mexico.

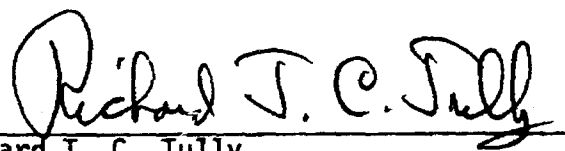
Respectfully submitted,



Richard T. C. Tully
Attorney for Applicant
P. O. Box 234
Farmington, N.M. 87401

CERTIFICATE OF MAILING

I certify that I mailed a copy of the Application for Downhole Commingling of the Dinero #1 Well in San Juan County, New Mexico to 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 on the 14 day of June, 1979.



Richard T. C. Tully
Attorney for Applicant

OFFSETTING LEASES AND OPERATORS

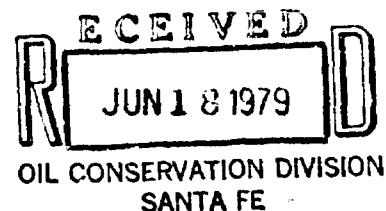
SAN JUAN COUNTY, NEW MEXICO

- A. USA SF 079070 (Same Lease)
Township 30 North, Range 14 West, N.M.P.M.
Section 12: SE/4
Section 13: SE/4
Operator: Dugan Production Corp.
Box 234
Farmington, N.M. 87401

Exxon Company, U.S.A.
Box 120
Denver, CO 80201
Attn: L. A. Dodd
Division Landman
- B. USA NM 6899
Township 30 North, Range 14 West, N.M.P.M.
Section 13: W/2
Operator: Southland Royalty Company
Drawer 870
Farmington, N.M. 87401
Attn: Larry Van Ryan
District Superintendent
- C. USA NM 28760
Township 30 North, Range 14 West, N.M.P.M.
Section 12: SW/4
Operator: Odessa Natural Corporation
Box 3908
Odessa, TX 79760
Attn: Jack R. Mundell
Director-Land Department
- D. USA NM 09867-A
Township 30 North, Range 13 West, N.M.P.M.
Section 7: SW/4
Section 18: W/2
Operator: Marathon Oil Company
Box 120
Casper, Wyoming 82602
Attn: J. R. Chidley
Division Landman

OIL CONSERVATION DIVISION
STATE OF NEW MEXICO

In the Matter of the Application of
Dugan Production Corp. for Downhole
Commingling of the Dinero #1 Well
in San Juan County, New Mexico



Case 6586

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, Richard T. C. Tully, hereby makes application for approval of downhole commingling in the well bore of the Dinero #1 Well in San Juan County, New Mexico.

The Applicant further states:

1. The Operator of the Dinero #1 Well is the Applicant Dugan Production Corp.

2. The Dinero #1 Well is located on federal oil and gas lease SF 079070 insofar as it covers the following described lands:

Township 30 North, Range 14 West, N.M.P.M.
Section 13: NE/4 (Conner Fruitland Pool Extension)
Section 13: NE/4 (Wildcat Pictured Cliffs Pool)
San Juan County, New Mexico

3. The legal location of the well is as follows:

Township 30 North, Range 14 West, N.M.P.M.
Section 13: 1460' FNL - 810' FET (Unit Letter H)
San Juan County, New Mexico

4. The Dinero #1 Well is not currently dually completed in the Conner Fruitland Pool Extension and the Wildcat Pictured Cliffs Pool.

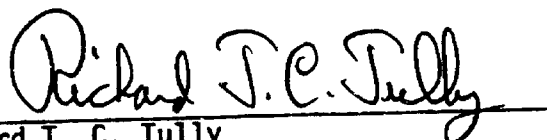
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7. The proposed commingling from the above Pools will result in the recovery of additional hydrocarbons from each of these Pools, thereby preventing waste, and the commingling will not violate correlative rights.

WHEREFORE, the Applicant requests this Application be set for hearing on July 11, 1979, and that after this hearing the New Mexico Oil Conservation Division grant this Application by giving approval to the downhole commingling of the Dinero #1 Well in San Juan County, New Mexico.

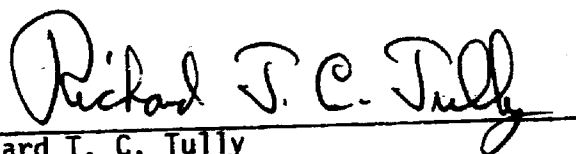
Respectfully submitted,



Richard T. C. Tully
Attorney for Applicant
P. O. Box 234
Farmington, N.M. 87401

CERTIFICATE OF MAILING

I certify that I mailed a copy of the Application for Downhole Commingling of the Dinero #1 Well in San Juan County, New Mexico to 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 on the 14 day of June, 1979.



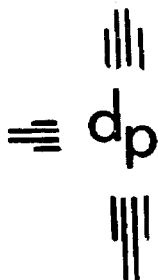
Richard T. C. Tully
Attorney for Applicant

OFFSETTING LEASES AND OPERATORS

SAN JUAN COUNTY, NEW MEXICO

- A. USA SF 079070 (Same Lease)
Township 30 North, Range 14 West, N.M.P.M.
Section 12: SE/4
Section 13: SE/4
Operator: Dugan Production Corp.
Box 234
Farmington, N.M. 87401

Exxon Company, U.S.A.
Box 120
Denver, CO 80201
Attn: L. A. Dodd
Division Landman
- B. USA NM 6899
Township 30 North, Range 14 West, N.M.P.M.
Section 13: W/2
Operator: Southland Royalty Company
Drawer 870
Farmington, N.M. 87401
Attn: Larry Van Ryan
District Superintendent
- C. USA NM 28760
Township 30 North, Range 14 West, N.M.P.M.
Section 12: SW/4
Operator: Odessa Natural Corporation
Box 3908
Odessa, TX 79760
Attn: Jack R. Mundell
Director-Land Department
- D. USA NM 09867-A
Township 30 North, Range 13 West, N.M.P.M.
Section 7: SW/4
Section 18: W/2
Operator: Marathon Oil Company
Box 120
Casper, Wyoming 82602
Attn: J. R. Chidley
Division Landman



dugan production corp.

June 14, 1979

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

RE: Application for Downhole Commingling of the
Big Field #5 Well (Fruitland and Pictured Cliffs)
in San Juan County, New Mexico

Dear Mr. Ramey:

Enclosed are the following instruments concerning the Application for Approval of Downhole Commingling by Dugan Production Corp. for the Big Field #5 Well to be located in the SE/4 of Section 10, Township 30 North, Range 14 West, N.M.P.M., San Juan County, New Mexico.

1. Three copies of the Application.
2. Three copies of a Certificate of Mailing stating that 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 notified of this Application.

We would appreciate it if you will place this Application for hearing on July 11, 1979.

Thank you for your assistance and cooperation in this matter. Please advise if you need further information.

Sincerely,

Richard T. C. Tully
General Counsel

RTCT/sak

Enclosures

OIL CONSERVATION DIVISION

STATE OF NEW MEXICO

In the Matter of the Application of
Dugan Production Corp. for Downhole
Commingling of the Big Field #5 Well
in San Juan County, New Mexico

Case 6586

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, Richard T. C. Tully, hereby makes application for approval of downhole commingling in the well bore of the Big Field #5 Well in San Juan County, New Mexico.

The Applicant further states:

1. The Operator of the Big Field #5 Well will be the Applicant Dugan Production Corp.

2. The Big Field #5 Well will be located on federal oil and gas lease NM 10561 insofar as it covers the following described lands;

Township 30 North, Range 14 West, N.M.P.M.
Section 10: SE/4 (Conner Fruitland Pool Extension)
Section 10: SE/4 (Wildcat Pictured Cliffs Pool)
San Juan County, New Mexico

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

Township 30 North, Range 14 West, N.M.P.M.
Section 10: Unit Letter P
San Juan County, New Mexico

4. The Big Field #5 Well is not currently dually completed in the Conner Fruitland Pool Extension and the Wildcat Pictured Cliffs Pool.

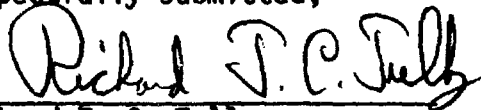
5. The Big Field #2 Well will be capable of only low marginal production from the Conner Fruitland Pool Extension, and from the Wildcat Pictured Cliffs Pool.

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 from each of these pools, thereby preventing waste, and the commingling will not violate correlative rights.

WHEREFORE, the Applicant requests this Application be set for hearing on July 11, 1979, and that after this hearing the New Mexico Oil Conservation Division grant this Application by giving approval to the downhole commingling of the Big Field #5 Well in San Juan County, New Mexico.

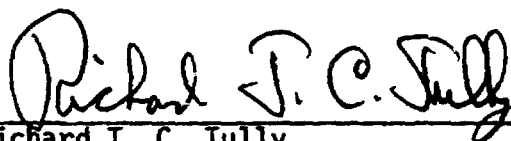
Respectfully submitted,



Richard T. C. Tully
Attorney for Applicant
P. O. Box 234
Farmington, N.M. 87401

CERTIFICATE OF MAILING

I certify that I mailed a copy of the Application for Downhole Commingling of the Big Field #5 Well in San Juan County, New Mexico to 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 on the 14th day of June, 1979.



Richard T. C. Tully
Attorney for Applicant

OFFSETTING LEASES AND OPERATORS

San Juan County, New Mexico

- A. USA NM 10561 (Same Lease)
Township 30 North, Range 14 West, N.M.P.M.
Section 10: N/2, SW/4
Operator: Dugan Production Corp.
P. O. Box 234
Farmington, N.M. 87401
- B. USA NM 24467
Township 30 North, Range 14 West, N.M.P.M.
Section 11: W/2
Operator: El Paso Natural Gas Company
Box 1492
El Paso, TX 79978
Attn: D. N. Canfield
Director of Land
- C. USA NM 26052
Township 30 North, Range 14 West, N.M.P.M.
Section 14: NW/4
Operator: Dugan Production Corp.
Box 234
Farmington, N.M. 87401
- D. USA NM 28820
Township 30 North, Range 14 West, N.M.P.M.
Section 15: NE/4, E/2 NW/4
Operator: Dugan Production Corp.
Box 234
Farmington, N.M. 87401

Mountain Fuel Supply Company
Box 11368
Salt Lake City, UT 84139
Attn: R. E. Pittam
Staff Landman
- E. USA NM 23473
Township 30 North, Range 14 West, N.M.P.M.
Section 15: SW/4 NW/4
Operator: Dugan Production Corp.
Box 234
Farmington, N.M. 87401

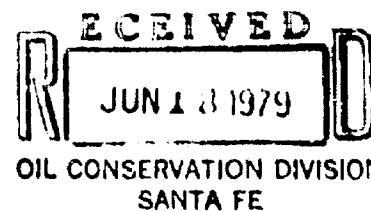
Mountain Fuel Supply Company
Box 11368
Salt Lake City, UT 84139
Attn: R. E. Pittam
Staff Landman

Tenneco Oil Company
720 South Colorado Blvd.
Penthouse
Denver, CO 80222
Attn: J. F. Gavlick, Division Landman
- F. USA NM 3565
Township 30 North, Range 14 West, N.M.P.M.
Section 15: NW/4 NW/4
Operator: Dugan Production Corp.
Box 234
Farmington, N.M. 87401

OIL CONSERVATION DIVISION

STATE OF NEW MEXICO

In the Matter of the Application of
Dugan Production Corp. for Downhole
Commingling of the Big Field #5 Well
in San Juan County, New Mexico



Case 10586

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, Richard T. C. Tully, hereby makes application for approval of downhole commingling in the well bore of the Big Field #5 Well in San Juan County, New Mexico.

The Applicant further states:

1. The Operator of the Big Field #5 Well will be the Applicant Dugan Production Corp.

2. The Big Field #5 Well will be located on federal oil and gas lease NM 10561 insofar as it covers the following described lands:

Township 30 North, Range 14 West, N.M.P.M.
Section 10: SE/4 (Conner Fruitland Pool Extension)
Section 10: SE/4 (Wildcat Pictured Cliffs Pool)
San Juan County, New Mexico

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

Township 30 North, Range 14 West, N.M.P.M.
Section 10: Unit Letter P
San Juan County, New Mexico

4. The Big Field #5 Well is not currently dually completed in the Conner Fruitland Pool Extension and the Wildcat Pictured Cliffs Pool.

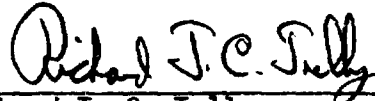
5. The Big Field #2 Well will be capable of only low marginal production from the Conner Fruitland Pool Extension, and from the Wildcat Pictured Cliffs Pool.

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 from each of these pools, thereby preventing waste, and the commingling will not violate correlative rights.

WHEREFORE, the Applicant requests this Application be set for hearing on July 11, 1979, and that after this hearing the New Mexico Oil Conservation Division grant this Application by giving approval to the downhole commingling of the Big Field #5 Well in San Juan County, New Mexico.

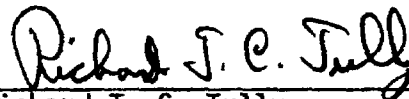
Respectfully submitted,



Richard T. C. Tully
Attorney for Applicant
P. O. Box 234
Farmington, N.M. 87401

CERTIFICATE OF MAILING

I certify that I mailed a copy of the Application for Downhole Commingling of the Big Field #5 Well in San Juan County, New Mexico to 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 on the 14 day of June, 1979.



Richard T. C. Tully
Attorney for Applicant

OFFSETTING LEASES AND OPERATORS

San Juan County, New Mexico

- A. USA NM 10561 (Same Lease)
Township 30 North, Range 14 West, N.M.P.M.
Section 10: N/2, SW/4
Operator: Dugan Production Corp.
P. O. Box 234
Farmington, N.M. 87401
- B. USA NM 24467
Township 30 North, Range 14 West, N.M.P.M.
Section 11: W/2
Operator: El Paso Natural Gas Company
Box 1492
El Paso, TX 79978
Attn: D. N. Canfield
Director of Land
- C. USA NM 26052
Township 30 North, Range 14 West, N.M.P.M.
Section 14: NW/4
Operator: Dugan Production Corp.
Box 234
Farmington, N.M. 87401
- D. USA NM 28820
Township 30 North, Range 14 West, N.M.P.M.
Section 15: NE/4, E/2 NW/4
Operator: Dugan Production Corp.
Box 234
Farmington, N.M. 87401

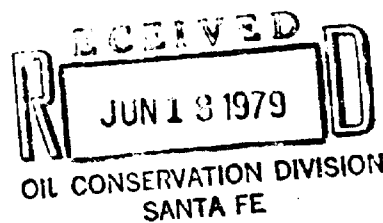
Mountain Fuel Supply Company
Box 11368
Salt Lake City, UT 84139
Attn: R. E. Pittam
Staff Landman
- E. USA NM 23473
Township 30 North, Range 14 West, N.M.P.M.
Section 15: SW/4 NW/4
Operator: Dugan Production Corp.
Box 234
Farmington, N.M. 87401

Mountain Fuel Supply Company
Box 11368
Salt Lake City, UT 84139
Attn: R. E. Pittam
Staff Landman

Tenneco Oil Company
720 South Colorado Blvd.
Penthouse
Denver, CO 80222
Attn: J. F. Gavlick, Division Landman
- F. USA NM 3565
Township 30 North, Range 14 West, N.M.P.M.
Section 15: NW/4 NW/4
Operator: Dugan Production Corp.
Box 234
Farmington, N.M. 87401

OIL CONSERVATION DIVISION
STATE OF NEW MEXICO

In the Matter of the Application of
Dugan Production Corp. for Downhole
Commingling of the Big Field #5 Well
in San Juan County, New Mexico



Case 6586

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, Richard T. C. Tully, hereby makes application for approval of downhole commingling in the well bore of the Big Field #5 Well in San Juan County, New Mexico.

The Applicant further states:

1. The Operator of the Big Field #5 Well will be the Applicant Dugan Production Corp.

2. The Big Field #5 Well will be located on federal oil and gas lease NM 10561 insofar as it covers the following described lands;

Township 30 North, Range 14 West, N.M.P.M.
Section 10: SE/4 (Conner Fruitland Pool Extension)
Section 10: SE/4 (Wildcat Pictured Cliffs Pool)
San Juan County, New Mexico

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

Township 30 North, Range 14 West, N.M.P.M.
Section 10: Unit Letter P
San Juan County, New Mexico

4. The Big Field #5 Well is not currently dually completed in the Conner Fruitland Pool Extension and the Wildcat Pictured Cliffs Pool.

5. The Big Field #2 Well will be capable of only low marginal production from the Conner Fruitland Pool Extension, and from the Wildcat Pictured Cliffs 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 from each of these pools, thereby preventing waste, and the commingling will not violate correlative rights.

WHEREFORE, the Applicant requests this Application be set for hearing on July 11, 1979, and that after this hearing the New Mexico Oil Conservation Division grant this Application by giving approval to the downhole commingling of the Big Field #5 Well in San Juan County, New Mexico.

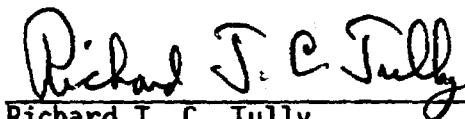
Respectfully submitted,



Richard T. C. Tully
Attorney for Applicant
P. O. Box 234
Farmington, N.M. 87401

CERTIFICATE OF MAILING

I certify that I mailed a copy of the Application for Downhole Commingling of the Big Field #5 Well in San Juan County, New Mexico to 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 on the 14 day of June, 1979.



Richard T. C. Tully
Attorney for Applicant

OFFSETTING LEASES AND OPERATORS

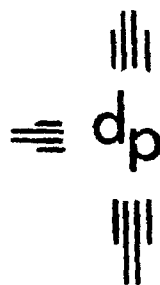
San Juan County, New Mexico

- A. USA NM 10561 (Same Lease)
Township 30 North, Range 14 West, N.M.P.M.
Section 10: N/2, SW/4
Operator: Dugan Production Corp.
P. O. Box 234
Farmington, N.M. 87401
- B. USA NM 24467
Township 30 North, Range 14 West, N.M.P.M.
Section 11: W/2
Operator: El Paso Natural Gas Company
Box 1492
El Paso, TX 79978
Attn: D. N. Canfield
Director of Land
- C. USA NM 26052
Township 30 North, Range 14 West, N.M.P.M.
Section 14: NW/4
Operator: Dugan Production Corp.
Box 234
Farmington, N.M. 87401
- D. USA NM 28820
Township 30 North, Range 14 West, N.M.P.M.
Section 15: NE/4, E/2 NW/4
Operator: Dugan Production Corp.
Box 234
Farmington, N.M. 87401

Mountain Fuel Supply Company
Box 11368
Salt Lake City, UT 84139
Attn: R. E. Pittam
Staff Landman
- E. USA NM 23473
Township 30 North, Range 14 West, N.M.P.M.
Section 15: SW/4 NW/4
Operator: Dugan Production Corp.
Box 234
Farmington, N.M. 87401

Mountain Fuel Supply Company
Box 11368
Salt Lake City, UT 84139
Attn: R. E. Pittam
Staff Landman

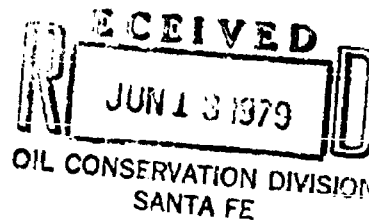
Tenneco Oil Company
720 South Colorado Blvd.
Penthouse
Denver, CO 80222
Attn: J. F. Gavlick, Division Landman
- F. USA NM 3565
Township 30 North, Range 14 West, N.M.P.M.
Section 15: NW/4 NW/4
Operator: Dugan Production Corp.
Box 234
Farmington, N.M. 87401



dugan production corp.

June 14, 1979

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



RE: Application for Downhole Commingling of the
Big Field #2 Well (Fruitland and Pictured Cliffs)
in San Juan County, New Mexico

Dear Mr. Ramey:

Enclosed are the following instruments concerning the Application for Approval of Downhole Commingling by Dugan Production Corp. for the Big Field #2 Well located in the NW/4 of Section 3, Township 30 North, Range 14 West, N.M.P.M., San Juan County, New Mexico.

1. Three copies of the Application.
2. Three copies of a Certificate of Mailing stating that 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 notified of this Application.

We would appreciate it if you will place this Application for hearing on July 11, 1979.

Thank you for your assistance and cooperation in this matter. Please advise if you need further information.

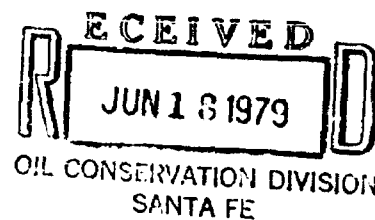
Sincerely,

Richard T. C. Tully
General Counsel

RTCT/sak

Enclosures

OIL CONSERVATION DIVISION
STATE OF NEW MEXICO



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

Case 6586

APPLICATION

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The Applicant further states:

1. The Operator of the Big Field #2 Well is the Applicant Dugan Production Corp.
2. The Big Field #2 Well is located on federal oil and gas leases NM 10561 and NM 17782 insofar as they cover the following described lands:

Township 30 North, Range 14 West, N.M.P.M.

Section 3: NW/4 (Conner Fruitland Pool Extension)

Section 3: NW/4 (Wildcat Pictured Cliffs Pool)

San Juan County, New Mexico

3. The legal location of the well is as follows:

Township 30 North, Range 14 West, N.M.P.M.

Section 3: 790' FNL - 1850' FWL (Unit Letter C)

San Juan County, New Mexico

4. The Big Field #2 Well is not currently dually completed in the Conner Fruitland Pool Extension and the Wildcat Pictured Cliffs Pool.

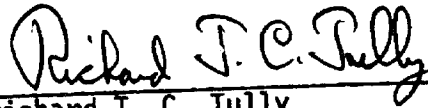
5. The Big Field #2 Well is capable of only low marginal production from the Conner Fruitland Pool Extension, and the well is also only capable of low marginal production from the Wildcat Pictured Cliffs Pool.

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 from each of these Pools, thereby preventing waste, and the commingling will not violate correlative rights.

WHEREFORE, the Applicant requests this Application be set for hearing on July 11, 1979, and that after this hearing the New Mexico Oil Conservation Division grant this Application by given approval to the downhole commingling of the Big Field #2 Well in San Juan County, New Mexico.

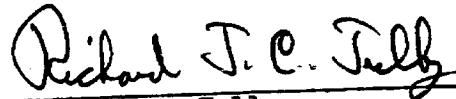
Respectfully submitted,



Richard T. C. Tully
Attorney for Applicant
Box 234
Farmington, N.M. 87401

CERTIFICATE OF MAILING

I certify that I mailed a copy of the Application for Downhole Commingling of the Big Field #2 Well in San Juan County, New Mexico to 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 on the 14th day of June, 1979.



Richard T. C. Tully
Attorney for Applicant

OFFSETTING LEASES AND OPERATORS

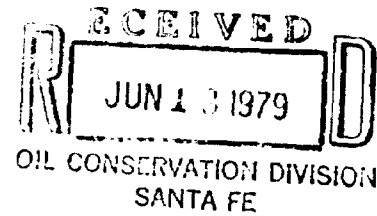
SAN JUAN COUNTY, NEW MEXICO

- A. USA NM 10561 (Same Lease)
Township 30 North, Range 14 West, N.M.P.M.
Section 3: NE/4, SW/4
Operator: Dugan Production Corp.
Box 234
Farmington, N.M. 87401
- B. USA NM 24467
Township 30 North, Range 14 West, N.M.P.M.
Section 3: SE/4
Operator: El Paso Natural Gas Company
Box 1492
El Paso, TX 79978
Attn: D. N. Canfield
Director of Land
- C. USA NM 16765
Township 30 North, Range 14 West, N.M.P.M.
Section 4: N/2 NE/4, SW/4 NE/4
Operator: Mountain Fuel Supply Company
Box 11368
Salt Lake City, UT 84139
Attn: R. E. Pittam
Staff Landman
- D. USA NM 19403
Township 30 North, Range 14 West, N.M.P.M.
Section 4: SE/4 NE/4, E/2 SE/4
Operator: Marshall and Winston, Inc.
Box 874
Midland, TX 79702
Attn: William S. Marshall
President
- E. USA NM 27177
Township 30 North, Range 14 West, N.M.P.M.
Section 4: W/2 SE/4
Operator: El Paso Natural Gas Company
Box 1492
El Paso, TX 79978
Attn: D. N. Canfield
Director of Land
- F. Ute Mountain Unleased Tribal Acreage
Township 31 North, Range 14 West, N.M.P.M.
Section 34: S/2
- G. Ute Mountain Unleased Tribal Acreage
Township 31 North, Range 14 West, N.M.P.M.
Section 33: SE/4

OIL CONSERVATION DIVISION

STATE OF NEW MEXICO

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



Case 6586

APPLICATION

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The Applicant further states:

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2. The Big Field #2 Well is located on federal oil and gas leases NM 10561 and NM 17782 insofar as they cover the following described lands:

Township 30 North, Range 14 West, N.M.P.M.
Section 3: NW/4 (Conner Fruitland Pool Extension)
Section 3: NW/4 (Wildcat Pictured Cliffs Pool)
San Juan County, New Mexico

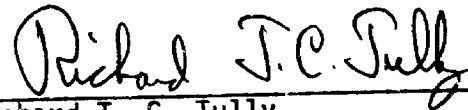
3. The legal location of the well is as follows:

Township 30 North, Range 14 West, N.M.P.M.
Section 3: 790' FNL ~ 1850' FWL (Unit Letter C)
San Juan County, New Mexico

4. The Big Field #2 Well is not currently dually completed in the Conner Fruitland Pool Extension and the Wildcat Pictured Cliffs Pool.
5. The Big Field #2 Well is capable of only low marginal production from the Conner Fruitland Pool Extension, and the well is also only capable of low marginal production from the Wildcat Pictured Cliffs 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 from each of these Pools, thereby preventing waste, and the commingling will not violate correlative rights.

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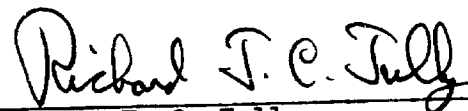
Respectfully submitted,



Richard T. C. Tully
Attorney for Applicant
Box 234
Farmington, N.M. 87401

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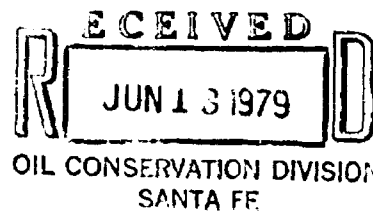
Richard T. C. Tully
Attorney for Applicant

OFFSETTING LEASES AND OPERATORS

SAN JUAN COUNTY, NEW MEXICO

- A. USA NM 10561 (Same Lease)
Township 30 North, Range 14 West, N.M.P.M.
Section 3: NE/4, SW/4
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Farmington, N.M. 87401
- B. USA NM 24467
Township 30 North, Range 14 West, N.M.P.M.
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Director of Land
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Staff Landman
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OIL CONSERVATION DIVISION
STATE OF NEW MEXICO



In the Matter of the Application of
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Case 6586

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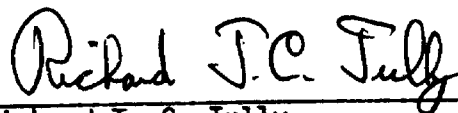
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Section 3: 790' FNL - 1850' FWL (Unit Letter C)
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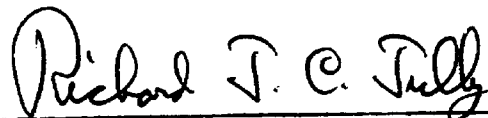
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Richard T. C. Tully
Attorney for Applicant

OFFSETTING LEASES AND OPERATORS

SAN JUAN COUNTY, NEW MEXICO

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Farmington, N.M. 87401
- B. USA NM 24467
Township 30 North, Range 14 West, N.M.P.M.
Section 3: SE/4
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Box 1492
El Paso, TX 79978
Attn: D. N. Canfield
Director of Land
- C. USA NM 16765
Township 30 North, Range 14 West, N.M.P.M.
Section 4: N/2 NE/4, SW/4 NE/4
Operator: Mountain Fuel Supply Company
Box 11368
Salt Lake City, UT 84139
Attn: R. E. Pittam
Staff Landman
- D. USA NM 19403
Township 30 North, Range 14 West, N.M.P.M.
Section 4: SE/4 NE/4, E/2 SE/4
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Section 34: S/2
- G. Ute Mountain Unleased Tribal Acreage
Township 31 North, Range 14 West, N.M.P.M.
Section 33: SE/4

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. 6586

Order No. A-6064

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 July 11
19 79, at Santa Fe, New Mexico, before Examiner Richard L.
Stamets.

NOW, on this _____ day of July, 19 79, 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 following wells, all in Township, 30
North, Range 14 West, NMPM, San Juan County, New Mexico:

Big Field Well No. 2 in Unit C of Section 3;
Big Field Well No. 5 in Unit P of Section 10;
Dinero Well No. 1 in Unit H of Section 13; and the
Molly Pitcher Well No. 2 in Unit H of Section 14.

See under

(4) That from the Conner-Fruitland zone, the ^{as or as expected to be} subject well, ~~is~~ capable of low marginal production only.

(5) That from the undesigned Pictured Cliffs zone, the ^{as or as expected to be} 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 ^{any of the} the subject wells ~~is~~ are shut-in for 7 consecutive days.

(9) That in order to allocate the commingled production to each of the commingled zones in the subject wells, _____ percent of the commingled _____ production should be allocated to the Conner-Fruitland zone, and _____ percent of the commingled _____ production to the undesigned Pictured Cliffs 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 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 Conner-Fruitland and undesigned Pictured Cliffs production within the wellbore of the following wells ~~-----, located in Unit ----- of~~ all in Township 30 North, Range 14 West, NMPM, San Juan County, ~~Section -----, Township -----, Range -----,~~ NMPM, ----- County, New Mexico:

Big Field Well No. 2 in Unit C of Section 3;
Big Field Well No. 5 in Unit P of Section 10;
Dinero Well No. 1 in Unit H of Section 13; and the
Molly Pitcher Well No. 2 in Unit H of Section 14.

to each zone in each of the subject wells.

~~(ALTERNATE)~~

(2) That _____ percent of the commingled production shall be allocated to the Conner-Fruitland zone and _____ percent of the commingled production shall be allocated to the undesigned Pictured Cliffs 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.