Case No.

7159

Application

Transcripts

Small Exhibits

ETC

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

BRUCE KING
GOVERNOR

LARRY KEHOE
SECRETARY

March 10, 1981

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

Ms. Lynn Teschendorf, Attorney
Consolidated Oil & Gas, Inc.
1860 Lincoln Street #1300
Denver, Colorado 80295

Re: CASE NO. 7159
ORDER NO. R-6620

Applicant:

Consolidated Oil & Gas, Inc.

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. 7159
Order No. R-6620

APPLICATION OF CONSOLIDATED OIL
& GAS, INC. 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 February 25, 1981, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 6th day of March, 1981, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

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

(2) That the applicant, Consolidated Oil & Gas, Inc., is the owner and operator of the Navajo Well No. 2-E, located in Unit C of Section 11, Township 25 North, Range 10 West, NMPM, San Juan County, New Mexico.

(3) That the applicant seeks authority to commingle Greenhorn oil and Dakota oil and gas production within the wellbore of the above-described well.

(4) That from the Greenhorn zone, the subject well is capable of low marginal oil production only with little or no gas.

(5) That the subject well is so cased that it is impracticable to effect a dual completion thereof.

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

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

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

(9) That in order to allocate the commingled production to each of the commingled zones in the subject well, 55 percent of the commingled oil production should be allocated to the Greenhorn zone, and 45 percent of the commingled oil production and all of the gas production to the Dakota zone.

IT IS THEREFORE ORDERED:

(1) That the applicant, Consolidated Oil & Gas, Inc., is hereby authorized to commingle Greenhorn and Dakota production within the wellbore of the Navajo Well No. 2-E, located in Unit C of Section 11, Township 25 North, Range 10 West, NMPM, San Juan County, New Mexico.

(2) That 55 percent of the commingled oil production shall be allocated to the Greenhorn zone and 45 percent of the commingled oil production and all of the gas production shall be allocated to the Dakota 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.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

JOE D. RAMEY,
Director

S E A L

dr/

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
STATE LAND OFFICE BLDG.
SANTA FE, NEW MEXICO
25 February 1981

EXAMINER HEARING

IN THE MATTER OF:

Application of Consolidated Oil & Gas, Inc., for downhole commingling, San Juan County, New Mexico.

CASE 7159

BEFORE: Daniel S. Nutter

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 to the Division State Land Office Bldg. Santa Fe, New Mexico 87501
For the Applicant:	Lynn Teschendorf, Esq. Consolidated Oil and Gas, Inc. Denver, Colorado

I N D E X

E X H I B I T S

MR. NUTTER: We'll call next Case Number 7159.

MR. PADILLA: Application of Consolidated Oil and Gas, Inc., for downhole commingling, San Juan County, New Mexico.

MS. TESCHENDORF: Lynn Teschendorf appearing on behalf of the applicant.

I have one witness to be sworn.

(Witness sworn.)

DALE RICHARDSON

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

DIRECT EXAMINATION

BY MS. TESCHENDORF:

Q. Would you please state your name, by whom you're employed, and in what capacity?

A. My name is Dale Richardson. I'm employed by Consolidated Oil and Gas, and I'm Production and Drilling Superintendent, Farmington Area.

Q. Have you ever testified before the Division before?

A. No, I haven't.

Q. Would you please summarize your educational background and work experience for the Examiner?

A. I graduated from New Mexico State with a Bachelor of Science in mechanical engineering in 1974, and was employed three years as production, drilling, and completion engineer with Amoco, and I was employed for Northwest Pipeline for two years as a drilling and completion engineer. I've been with Consolidated approximately a year.

Q. Are you familiar with the facts surrounding this particular case?

A. Yes, I am.

MS. TESCHENDORF: Is the witness considered qualified?

MR. NUTTER: Yes, he is.

Q. Mr. Richardson, would you please refer to what we've marked as Exhibit Number One, and explain what that shows?

A. Consolidated -- we're referencing Section Number 11 now and this is just a plat of the wells, and the surrounding wells, which we will need to reference later on in my discussion, and more specifically, the north half of Section 11.

Q. And the well in question, the Navajo No.

2-E, what is the exact location of that well, please?

A. That's 790 feet from the north line and 1833 feet from the west line of Section 11, Township 25 North, and 10 West, Range 10 West.

Q. Okay. Would you now refer to what we've marked as Exhibit Number Two and describe that?

A. Well Data Sheet --

Q. No, this is --

A. Oh, excuse me, this is a wellbore diagram. I'm sorry. Wellbcre diagram for the Navajo No. 2-E.

Briefly, we set 8-5/8ths casing at 24 -- 22 -- 2022 feet, circulated -- excuse me, 222 feet, and circulated cement to the surface, and drilled to TD to 6700 feet, and a little plug back to 6673, with 5-1/2 casing was set at 6692 with three stage cement and did circulation at the surface.

Also you'll note the Greenhorn perforations at 6458 and 6506; also Dakota perforations at 6612 to 6650. Note that that is 5-1/2 casing, this is of interest later, and also we have a single string of 1-1/2 tubing landed at 6612.

Q. When was this well spudded, Mr. Richardson?

A. That was in December 7th of 1980.

Q. Okay. Would you now refer to what we've marked as Exhibit Number Three and briefly describe what that shows?

A. This is our well data sheet for the Navajo 2-E referencing our completion and perforations of both the Dakota and Greenhorn zones and the tests that we conducted.

More specifically, I don't think we need to repeat perforations or mention the volumes of fluid during the fracturing, but specifically, we did frac the Dakota, set a plug, a bridge plug, and came up and completed the Greenhorn formation, and swab tested the Greenhorn for--immediately after we fraced it, and we recovered 22 barrels of oil and 8 barrels of water and it notes here in eight hours.

And the thin that's important is very little gas was associated with the Greenhorn oil. And we did shut the well in for a 44-hour pressure buildup. Now this is with 2-7/8ths tubing in the hole, and ran a pressure buildup on that for 44 hours, and that bottom hole pressure, now, this was taken, bottom hole pressure, at 6300 feet, was 1881 psi.

And then after we completed this, we did reverse out 22 barrels of oil from the Greenhorn and

there was very little gas associated with this oil, again, and --

Q. Are there any other Greenhorn completions in this vicinity, to your knowledge?

A. No, there isn't, not to my knowledge.

Q. I'd like to go back to the casing size you set and ask what your original intentions were for the well and why you set the 5-1/2 inch rather than something larger?

A. Originally we had planned a single zone completion in the Dakota zone and it was an after thought when we had a chance to look at the open hole logs that we decided that we would test the Greenhorn in this area, and the information that we were able to obtain in the Farmington area from other operators was very limited. This was basically a test to see if there was Greenhorn production and it was an after thought.

Q. Therefor what is Consolidated seeking with this application?

A. Well, we're proposing to commingle the Dakota and the Greenhorn production and due to limiting factors of casing size, it would be difficult, if not -- with 5-1/2 casing to attempt to pump this well, if not impossible, because we're limited to two 1-1/2 strings as

maximum size tubings we can run in the 5-1/2 casing.

So we propose to commingle the Dakota and the Greenhorn production downhole and we have done -- we've recovered an oil gravity on -- after our test on -- of the Greenhorn, and --

Q. We'll get back to that a little later.

A. Okay.

Q. On the Exhibit Three, then, I'd like to discuss the pressures encountered in these zones. Did you run a bottom hole pressure test on the Dakota zone?

A. We did not run a bottom hole pressure test on the Dakota zone.

Q. Was a test run for bottom hole pressure in the Dakota zone in any of the nearby wells?

A. Yes, in the Navajo -- nearby Navajo 1-E a bottom hole pressure at 6375 feet was 2038 psi, and the 1-E is located approximately 3700 feet northeast of the well, Navajo 2-E.

Q. Okay, and how about the pressure in the Greenhorn?

A. The pressure in the Greenhorn was 1881 psia. That was a bottom pressure at 6300 feet. That was after a 44-hour buildup.

Q. And how about the commingled Dakota-

Greenhorn?

A. Bottom hole pressure was -- at 6554 feet was 1908 psi.

Q. With these pressures do you think there would be any problem with cross migration of fluids?

A. No, I don't believe there will be.

Q. As to the fluids in each of these two zones, from Exhibit Three could you briefly describe what fluids are coming from each zone, the quantities? Why don't you answer that question? The gravities?

A. All right. The gravity of the oil from the Greenhorn during our test, our swab test of the Greenhorn, was 38.5. That is at 60 degrees. And since we didn't have a gravity of the oil from the Dakota, we used the nearest offsets, and that would be the Navajo 2 and let me get these here. Okay, that would be for the Navajo 1-E -- for the Navajo 1 and 2, which are old producing wells and we have oil sales on, and the gravity for them, both of those producing wells, was 59.5 at 60 degrees.

And of course the gravity of the combined during the test of our well was 48.1 at 60 degrees. And during the test,the AOF test, which was only tested for 8306 Mcf, the well produced 22 barrels of oil, 10 barrels of load water, that would be frac fluid recovered, and that

was for a 3-hour period.

The oil gravity recovered during the AOF was 48.1 and that was at 60 degrees.

Q. In your opinion are the fluids compatible in this well?

A. Yes, they are.

Q. Okay. Based on your tests, can you recommend a percentage for allocation of fluids to each zone?

A. Yes. You'll find in Exhibit Three that the -- we based it on the test -- we're using offset information again, the Dakota, the offset Dakota zone produced 1.3 barrels of oil for every 1 MMCF of gas produced.

Q. And you feel that would be an accurate way to allocate oil production to the two zones?

A. Yes, I believe it would.

Q. Can you suggest an alternative way that perhaps we would not recommend so highly but another alternative that you might have to allocate between the zones?

A. Based on the gravity of the oil produced in the Greenhorn and the Dakota we could allocate solely based on that, if necessary. We would prefer to do it on the 1.3 barrels per MMCF.

Q. Okay. Let's turn now to Exhibit Number Four and would you please describe what that shows?

A. Well, this is a C-122 taken on 2-11 of '81. The date of the test is incorrectly typed on this and it needs to be corrected. It is 2-11 of '81.

We have a rate of flow was 4658 Mcf and the well AOF, this is commingled now, at 8,306 Mcf. This was commingled for the Dakota and Greenhorn.

Q. Would you have a recommendation for allocation of the gas from this well?

A. We recommend that we allocate all the gas to the Dakota formation.

MS. TESCHENDORF: At this point I'd like to point out to the Examiner that in the application it was stated that the Greenhorn and Dakota were expected to be capable of marginal production only and this has not turned out to be the case, so we're amending our application in that respect.

Q. Mr. Richardson, is the ownership of both zones identical?

A. Yes, they are.

Q. And were copies of this application sent to the offset operators?

A. Yes, they were.

Q. In your opinion will the granting of this application be in the best interests of conservation,

the prevention of waste, and the protection of correlative rights?

A. Yes.

Q. Were Exhibits One through Four prepared by you or under your supervision?

A. Yes, they were.

MS. TESCHENDORF: I'd like to offer Exhibits One through Four in evidence.

MR. NUTTER: Exhibits One through Four will be admitted in evidence.

MS. TESCHENDORF: And I have nothing further.

CROSS EXAMINATION

BY MR. NUTTER:

Q. Mr. Richardson, now you said you didn't have any bottom hole pressure in the Dakota in this well, but you do have a Dakota bottom hole pressure from the Navajo 2-E, or the 1-E, which was 2038 pounds.

A. Yes, sir.

Q. Now, is that Navajo 1-E a well that was recently drilled or is it an old well?

A. No, that well was recently drilled and I believe it was completed in December, 1980.

Q. So the pressure should be equivalent to the pressure of this well insofar as depletion or virgin conditions is concerned.

A. Yes, it should be.

Q. Now, I don't understand your flow tests on oil. Now, when you ran your absolute open flow, the well made 8,306 Mcf -- or cubic feet, and produced 22 barrels of oil, right?

A. Yes, sir.

Q. But you say that the gravity split of the two indicates that 6-1/2 barrels was produced from the Greenhorn and 5-1/2 from the Dakota. Where did the other 10 or 11 barrels come from?

A. I really don't know, but it would have to be out of the Greenhorn.

MS. TESCHENDORF: Mr. Examiner, I think that might have been a typographical error. I think that might be 16-1/2 from the Greenhorn. That would add up to the 22. I'll have to check that.

Q. The oil gravity of 48.1, you're just taking that weighted gravity and working backwards onto your 22 barrels of total production, I presume, aren't you?

A. Yes, sir.

Q. To get a split. And I believe that if

it were producing at the rate of about 1.3 barrels of oil per Mcf, 1.3 times 8.3 would give you about 11 barrels of oil from the Dakota.

A. Yes, sir.

Q. And 11 and 5 and 6 -- 6-1/2 still wouldn't give you 22 barrels.

A. I believe we --

Q. You'd better check those figures, Mr. Richardson, and give us some firm figures on what you really think the -- where you really think this oil is coming from in this zone.

A. Do we need to reference, Mr. Nutter, do we need reference the rate of flow, the cumulative which was 4658 Mcf rather than the AOF under actual flow data in a 3-hour period?

Q. Okay, it didn't actually produce the 8-million, did it?

A. No, sir.

Q. It produced how much?

A. 4-million 658 Mcf. It was a very --

Q. 4-million what?

A. 4-million 658.

Q. Okay, if we call it 4-million 7, 4.7 -- okay, you have 4-million --

A. 4-million 658 Mcf.

Q. 658 times 1.3. That would be about 6 barrels of oil. That would still leave too much coming from the Greenhorn if it made 22 barrels of oil during the test.

A. It made -- it produced 22 barrels total fluid. I believe that's a typographical error. It only made 22 barrels total fluid.

Q. It's not 22 barrels of oil? You think then the typographical might be that the barrels of oil should be a 12 instead of 22?

A. Yes, sir. Yes, sir.

Q. And the 6-1/2 would not be a -- check those figures out and let us know what the actual production was.

A. I recall in the test that it was 22 barrels of total fluid. That would be correct. That is an error; we'll have to correct it.

Q. Okay, let me know exactly what the figures are there.

MR. NUTTER: Are there any other questions of this witness? He may be excused.

Do you have anything further, Ms. Teschendorf?

MS. TESCHENDORF: No, sir.

MR. NUTTER: Does anyone have anything they wish to offer in Case 7159?

We'll take the case under advisement.

(Hearing concluded.)

C E R T I F I C A T E

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

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. 7159, heard by me on 7/25 1981.

_____, Examiner
Oil Conservation Division

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

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
STATE LAND OFFICE BLDG.
SANTA FE, NEW MEXICO
25 February 1981

EXAMINER HEARING

IN THE MATTER OF:

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CASE 7159

BEFORE: Daniel S. Nutter

TRANSCRIPT OF HEARING

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

For the Applicant: Lynn Teschendorf, Esq.
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I N D E X

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the prevention of waste, and the protection of correlative rights?

A. Yes.

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MS. TESCHENDORF: I'd like to offer Exhibits One through Four in evidence.

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BY MR. NUTTER:

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A. Yes, sir.

Q. To get a split. And I believe that if

it were producing at the rate of about 1.3 barrels of oil per Mcf, 1.3 times 8.3 would give you about 11 barrels of oil from the Dakota.

A. Yes, sir.

Q. And 11 and 5 and 6 -- 6 1/2 still wouldn't give you 22 barrels.

A. I believe we --

Q. You'd better check those figures, Mr. Richardson, and give us some firm figures on what you really think the -- where you really think this oil is coming from in this zone.

A. Do we need to reference, Mr. Nutter, do we need reference the rate of flow, the cumulative which was 4658 Mcf rather than the AOF under actual flow data in a 3-hour period?

Q. Okay, it didn't actually produce the 8-million, did it?

A. No, sir.

Q. It produced how much?

A. 4-million 658 Mcf. It was a very --

Q. 4-million what?

A. 4-million 658.

Q. Okay, if we call it 4-million 7, 4.7 -- okay, you have 4-million --

A. 4-million 658 Mcf.

Q. 658 times 1.3. That would be about 6 barrels of oil. That would still leave too much coming from the Greenhorn if it made 22 barrels of oil during the test.

A. It made -- it produced 22 barrels total fluid. I believe that's a typographical error. It only made 22 barrels total fluid.

Q. It's not 22 barrels of oil? You think then the typographical might be that the barrels of oil should be a 12 instead of 22?

A. Yes, sir. Yes, sir.

Q. And the 6-1/2 would not be a -- check those figures out and let us know what the actual production was.

A. I recall in the test that it was 22 barrels of total fluid. That would be correct. That is an error; we'll have to correct it.

Q. Okay, let me know exactly what the figures are there.

MR. HUTTER: Are there any other questions of this witness? He may be excused.

Do you have anything further, Ms. Teschendorf?

MS. TSCCHUMDORF: No, sir.

MR. HUTTER: Does anyone have anything they wish to offer in Case 7159?

We'll take the case under advisement.

(Hearing concluded.)

C E R T I F I C A T E

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

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. 7159, heard by me on 2/25 1981.

_____, Examiner
Oil Conservation Division

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

LINCOLN TOWER BUILDING
1860 LINCOLN STREET
DENVER, COLORADO 80295
(303) 861-5252

Consolidated Oil & Gas, Inc.

Rec'd 3/2/81

February 26, 1981

Mr. Daniel S. Nutter
Oil Conservation Division
P.O. Box 2088
Santa Fe, NM 87501

Re: Case No. 7159

Dear Mr. Nutter:

To clarify the confusion caused by Consolidated's Exhibit 3 in Case No. 7159, during the AOF test run on the commingled zones the well produced 22 barrels of total fluid, 12 of oil and 10 of load water. This should answer your questions on this data.

Very truly yours,

CONSOLIDATED OIL & GAS, INC.

Lynn Teschendorf
Attorney

LHT/mek

	C.O.G. FED. No. 1 G	UNION TEXAS DK	C.O.G. NAVAJO No. 1 DK	EL PASO DK PC	EL PASO DK PC
	3		2		1
	C.O.G. LUNDEAN No. 1 DK		C.O.G. NAVAJO No. 1-E DK	EL PASO	
		C.O.G. NAVAJO No. 2-E DK GH	C.O.G. NAVAJO No. 2 DK	EL PASO DK	
	10		11		12
			C.O.G. NAVAJO No. 3 DK		EL PASO DK
			EL PASO TA O		C.O.G. DK
	15		14		13
		BROWN		EL PASO DK	

LEGEND

T25N-R10W

Consolidated Oil & Gas, Inc.

- O LOCATION
- DRY HOLE
- OIL WELL
- ABND. OIL WELL
- GAS WELL
- ABND. GAS WELL
- OIL & GAS WELL
- ABND. OIL & GAS WELL
- GAS INJECTION
- WTR. INJECTION
- NT NOT TESTED
- NP NOT PENETRATED
- NS NO SHOW

BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISION
COG EXHIBIT NO. 1
CASE NO. 7159

PROSPECT :

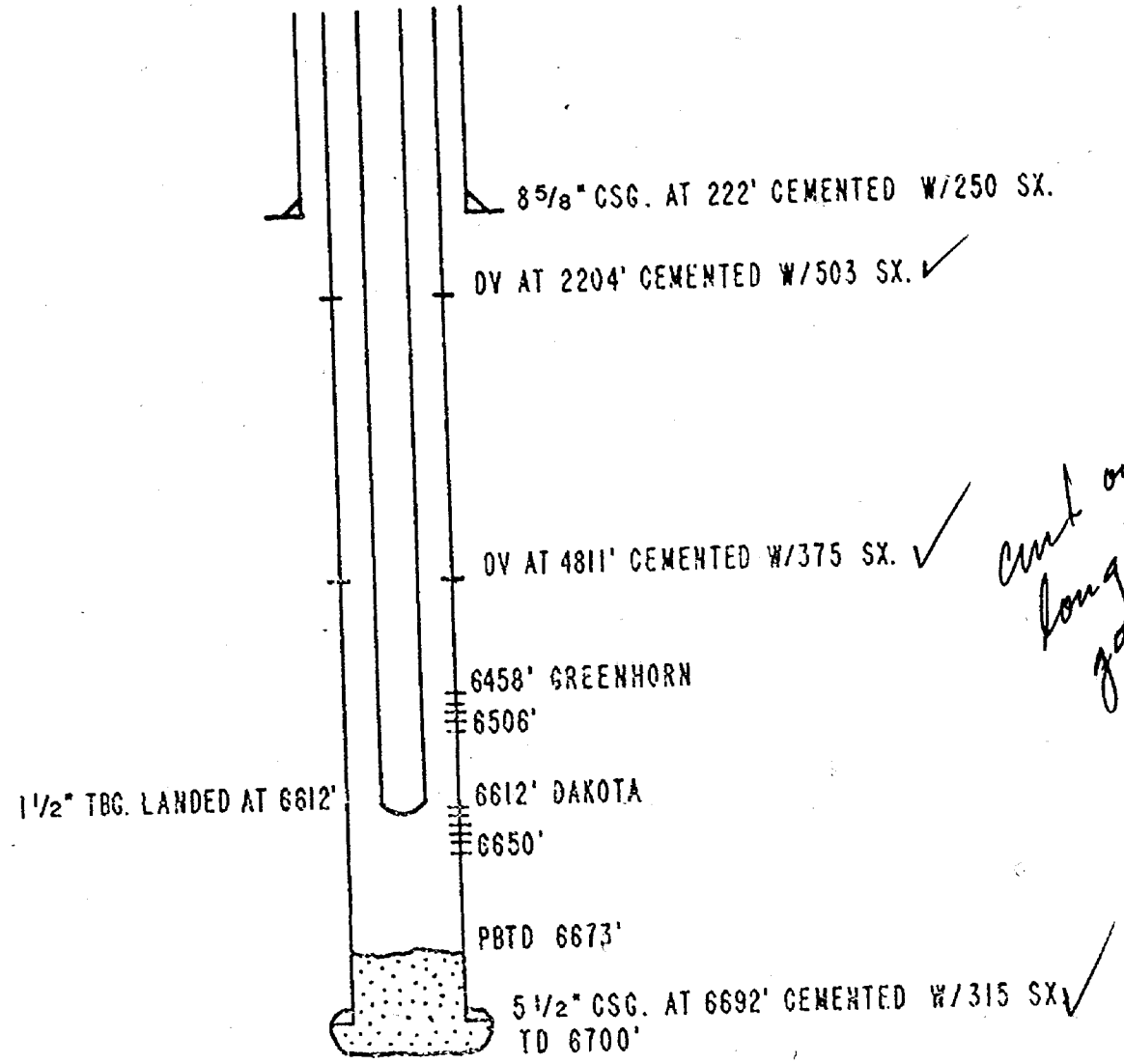
COUNTY: SAN JUAN STATE: NEW MEXICO.

CONTOURED ON:

CONTOUR INTERVAL :

SCALE : 1" = 2,000' DATE :

NAVAJO No. 2-E
790' FNL / 1833' FWL
SEC. 11, T25N-R10W
SAN JUAN COUNTY, NEW MEXICO



cmt on long string goes to surf.

Spd 12-7-80

BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISION
COG EXHIBIT NO. 2
CASE NO. 7159

NAVAJO 2-E

C-Sec. 11, T25N, R7W
San Juan County, New Mexico

BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISION
COG EXHIBIT NO. 3
CASE NO. 7159

WELL DATA:

Dakota Zone

Perfs 6612-6650. 1 shot every 2 feet
Frac'd with 45,000 gal. 40# crosslink gel containing 40,000# 20-40 sand and 368,000 SCF N_2

Greenhorn Zone

Perfs 6458, 64, 68, 72, 76, 80, 84, 88, 92, 96, 6501 and 6506
Frac'd with 15,000 gal. 40# crosslink gel containing 6000# 100 mesh sand as FLA, 12,000# 20-40 sand and 182,000 SCF N_2.

Tested as follows: Gravity 38.5°

1/23/81 Swabbed and recovered total of 22 BO + 8 BWL in 8 hrs. Swabbing 1 - 1-1/2 BOPH at end of day. Very little gas.

1/24/81 Swabbed and recovered 24 BO in 10 hrs. Swabbing 1/4 - 1 BOPH last 5 hrs. Very little gas.

1/25/81 Shut down for Sunday

1/26/81 Flowed off head and swabbed. Recovered total of 24 BO. Shut in for buildup. Gravity of oil was 38.5° @ 60°.

1/28/81 Pulled bomb. BHP @ 6300' was 1881# after 44 hrs. shut-in time. Reversed out 22 BO and proceeded with completion. 22 Bbls fluid (12 oil & 10 wtr) see letter dated 2/26

all or all
DK all you.

Commingled Dakota-Greenhorn

AOF of commingled zones run on 2/11/81 was 8306 Mcf/day. The well produced 22 BO and 10 bbls. of load water during the 3-hr. flow period. The oil gravity of 48.1° at 60° indicates approximately 6-1/2 BO was produced from Greenhorn and 5-1/2 BO from Dakota. The BHP @ 6554' was 1908#.

General Data:

1. The oil gravities of recent Dakota condensate sales from both the Navajo No. 1 and Navajo No. 2 were 59.5° @ 60°.

2. The Dakota zone in the area produces 1.30 bbl/MMcf based on cumulative oil and gas production from the Navajo No. 1, No. 2, No. 3, and Lundean No. 1

3. No BHP was run on the Dakota zone in the Navajo No. 2-E, but one was run in the nearby Navajo No. 1-E. The BHP @ 6735' was 2038#.

BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISION
COG EXHIBIT NO. 4
CASE NO. [K] Initial 7159 [ ] Annual [ ] Special

NEW MEXICO OIL CONSERVATION COMMISSION
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

Type Test: [K] Initial [ ] Annual [ ] Special			Test Date: 2-9-81	
Company: Consolidated Oil and Gas, Inc.		Connection		
Pool: Basin Dakota		Formation: Dakota		Unit
Completion Date	Total Depth: 6700'	Plug Back TD: 6673	Elevation: 6780' KB	Farm or Lease Name: Navajo
Csg. Size: 5½ / Wt.: 15.5 / d: 4.950 / Set At: 6875		Perforations: From 6458 To 6650		Well No.: 2-E
Tbg. Size: 1½ / Wt.: 2.9 / d: 1.610 / Set At: 6616		Perforations: From To		Unit: C / Sec.: 11 / Twp.: 25 / Rge.: 10
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Single		Packer Set At		County: San Juan
Producing Thru: Tubing	Reservoir Temp. °F: 166 @ 6554	Mean Annual Temp. °F	Baro. Press. – P_a: 12.0	State: New Mexico

L	H	Gg	% CO_2	% N_2	% H_2S	Prover	Meter Run	Taps
		.650 est				6" nipple		

	FLOW DATA				TUBING DATA		CASING DATA		
NO.	Prover Line Size	X Orifice Size	Press. p.s.i.g.	Diff. h_w	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	Temp. °F	Duration of Flow
SI	9 days					1493		1517		
1.	2 x 3/4					318	60	1109		3 hrs.
2.										
3.										
4.										
5.										

RATE OF FLOW CALCULATIONS

NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P_m	Flow Temp. Factor Ft.	Gravity Factor Fg	Super Compress. Factor, Fpv	Rate of Flow Q, Mcfd
1	11.00		330	1.000	1.240	1.035	4658.7
2.							
3.							
4.							
5.							

NO.	P_t	Temp. °R	T_t	Z
1.				
2.				
3.				
4.				
5.				

Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.
Specific Gravity Separator Gas _____ XXXXXXXXX
Specific Gravity Flowing Fluid XXXXX _____
Critical Pressure _____ P.S.I.A. _____ P.S.I.A.
Critical Temperature _____ R _____ R

P_c 1529 P_c^2 2337.8

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1		1121	1256.6	1081.2
2				
3				
4				
5				

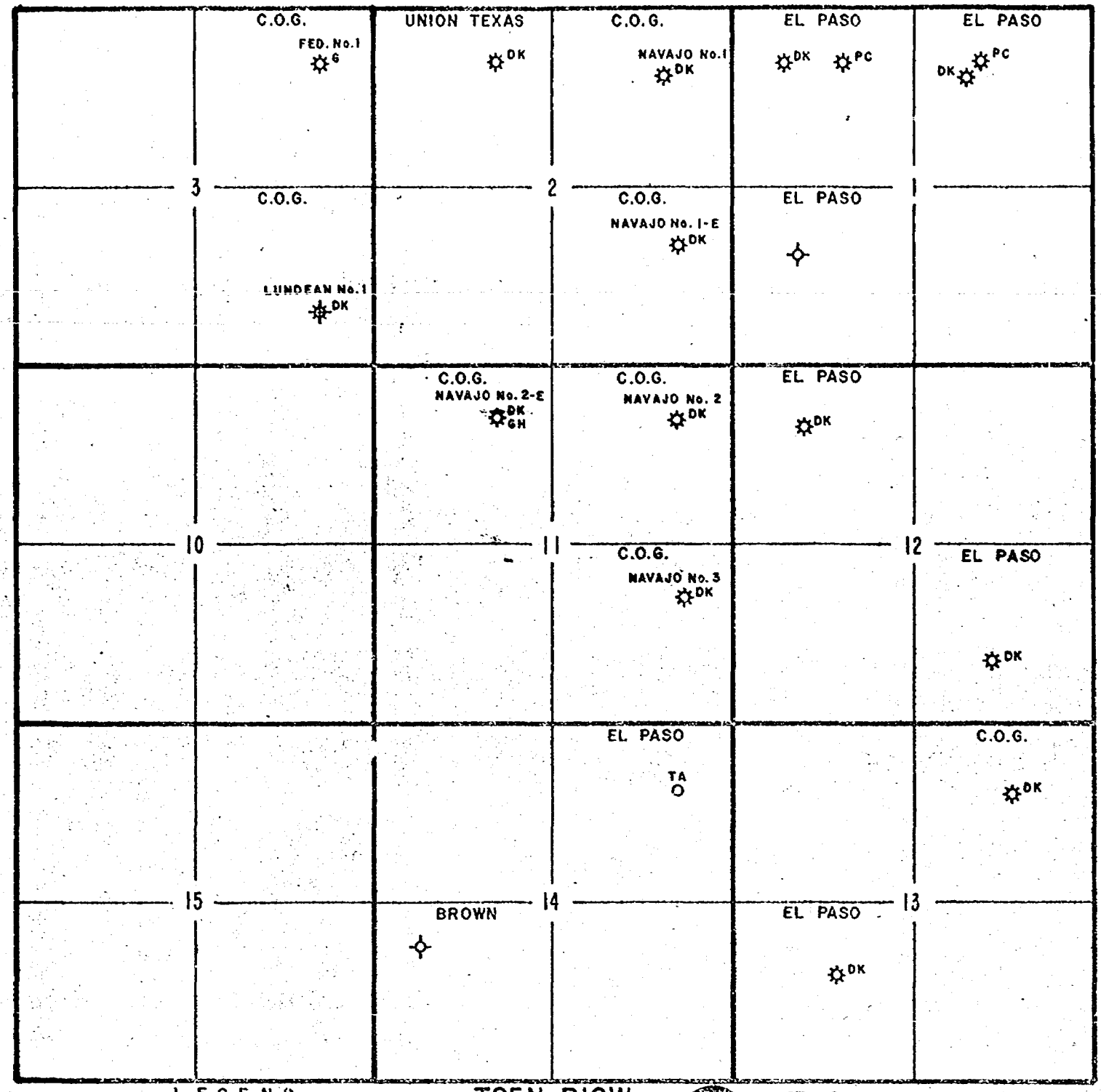
(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 2.1622$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.7830$

$AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 8306.5$

Absolute Open Flow 8306.5 Mcfd @ 15.025 | Angle of Slope θ _____ | Slope, n .75

Remarks: _____

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	Cecil McKenzie	Neil Tefteller	



LEGEND

T25N-R10W

O LOCATION	GAS INJECTION
DRY HOLE	WTR. INJECTION
OIL WELL	NT NOT TESTED
ABND. OIL WELL	NP NOT PENETRATED
GAS WELL	NS NO SHOW
ABND. GAS WELL	
OIL & GAS WELL	
ABND. OIL & GAS WELL	

Consolidated Oil & Gas, Inc.

BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISION
COG EXHIBIT NO. 1
CASE NO. 7159

PROSPECT:

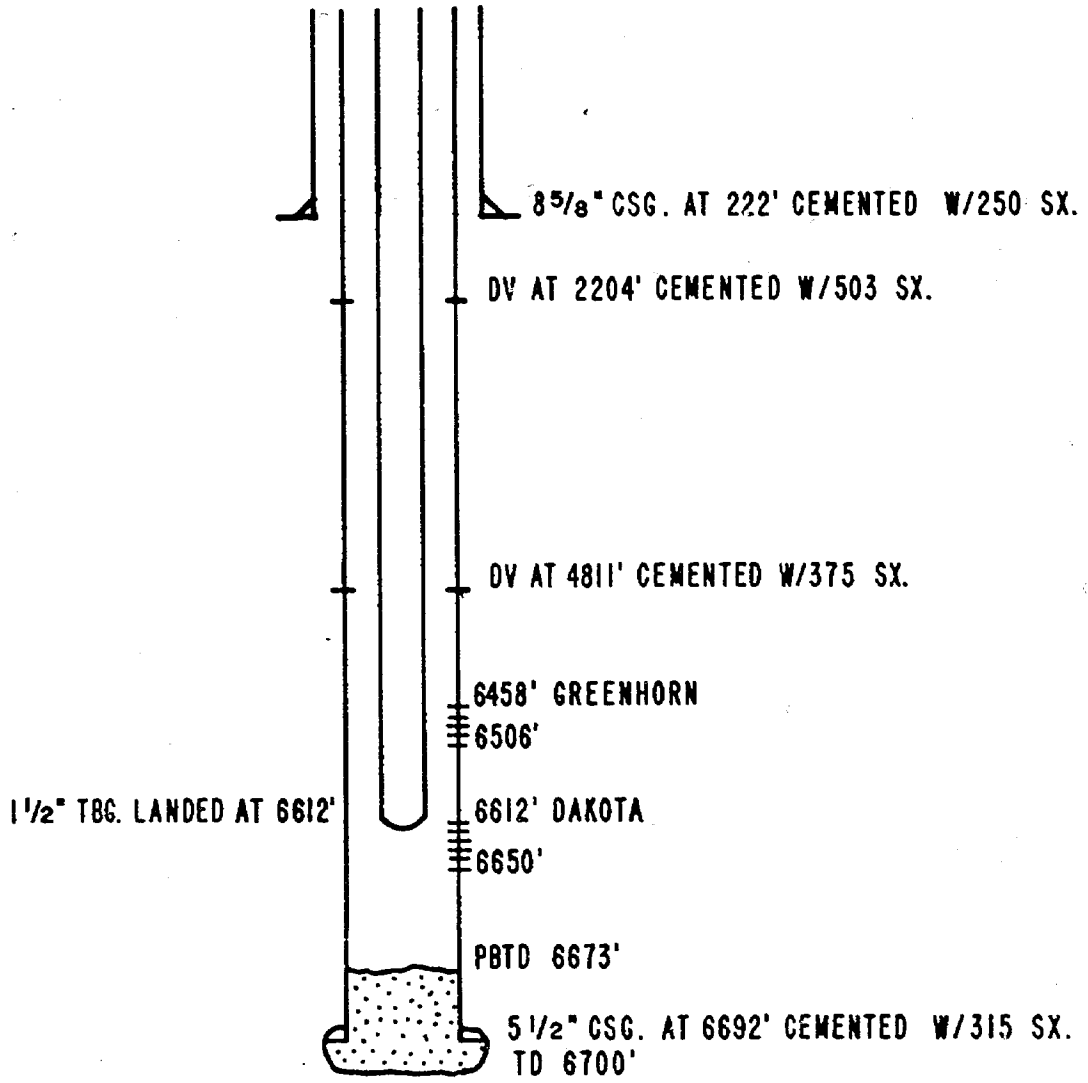
COUNTY: SAN JUAN STATE: NEW MEXICO.

CONTOURED ON:

CONTOUR INTERVAL:

SCALE: 1" = 2,000' DATE:

NAVAJO No. 2-E
790' FNL / 1833' FWL
SEC. 11, T25N-R10W
SAN JUAN COUNTY, NEW MEXICO



BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISION
COG EXHIBIT NO. 2
CASE NO. 7159

NAVAJO 2-E

C-Sec. 11, T25N, R10W
San Juan County, New Mexico

WELL DATA:

Dakota Zone

Perfs 6612-6650. 1 shot every 2 feet
Frac'd with 45,000 gal. 40# crosslink gel containing 40,000# 20-40 sand and 368,000 SCF N_2

Greenhorn Zone

Perfs 6458, 64, 68, 72, 76, 80, 84, 88, 92, 96, 6501 and 6506
Frac'd with 15,000 gal. 40# crosslink gel containing 6000# 100 mesh sand as FLA,12,000# 20-40 sand and 182,000 SCF N_2.

Tested as follows:

1/23/81 Swabbed and recovered total of 22 BO + 8 BWL in 8 hrs. Swabbing 1 - 1-1/2 BOPH at end of day. Very little gas.

1/24/81 Swabbed and recovered 24 BO in 10 hrs. Swabbing 1/4 - 1 BOPH last 5 hrs. Very little gas.

1/25/81 Shut down for Sunday

1/26/81 Flowed off head and swabbed. Recovered total of 24 BO. Shut in for buildup. Gravity of oil was 38.5° @ 60°.

1/28/81 Pulled bomb. BHP @ 6300' was 1881# after 44 hrs. shut-in time. Reversed out 22 BO and proceeded with completion.

Commingled Dakota-Greenhorn

AOF of commingled zones run on 2/11/81 was 8306 Mcf/day. The well produced 22 BO and 10 bbls. of load water during the 3-hr. flow period. The oil gravity of 48.1° at 60° indicates approximately 6-1/2 BO was produced from Greenhorn and 5-1/2 BO from Dakota. The BHP @ 6554' was 1908#.

General Data:

1. The oil gravities of recent Dakota condensate sales from both the Navajo No. 1 and Navajo No. 2 were 59.5° @ 60°.

2. The Dakota zone in the area produces 1.30 bbl/MMcf based on cumulative oil and gas production from the Navajo No. 1, No. 2, No. 3, and Lundean No. 1

3. No BHP was run on the Dakota zone in the Navajo No. 2-E, but one was run in the nearby Navajo No. 1-E. The BHP @ 6735' was 2038#.

BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISION
COG EXHIBIT NO. 4
CASE NO. 7759

NEW MEXICO OIL CONSERVATION COMMSSION
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

[X] Initial [ ] Annual [ ] Special | Test Date: 2-9-81

Company: Consolidated Oil and Gas, Inc.	Connection			
Pool: Basin Dakota	Formation: Dakota			Unit
Completion Date	Total Depth: 6700'	Plug Back TD: 6673	Elevation: 6780' KB	Farm or Lease Name: Navajo
Csg. Size: 5½ / Wt.: 15.5 / d: 4.950 / Set At: 6875	Perforations: From 6458 To 6650			Well No.: 2-E
Tbg. Size: 1½ / Wt.: 2.9 / d: 1.610 / Set At: 6616	Perforations: From To			Unit: C / Sec.: 11 / Twp.: 25 / Rge.: 10
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Single	Packer Set At			County: San Juan
Producing Thru: Tubing	Reservoir Temp. °F: 166 @ 6554	Mean Annual Temp. °F	Baro. Press. – P_a: 12.0	State: New Mexico

L	H	Gg	% CO_2	% N_2	% H_2S	Prover	Meter Run	Taps
		.650 est				6" nipple		

NO.	FLOW DATA: Prover Line Size X Orifice Size	Press. p.s.i.g.	Diff. h_w	Temp. °F	TUBING DATA: Press. p.s.i.g.	Temp. °F	CASING DATA: Press. p.s.i.g.	Temp. °F	Duration of Flow
SI	9 days				1493		1517		
1.	2 x 3/4				318	60	1109		3 hrs.
2.									
3.									
4.									
5.									

RATE OF FLOW CALCULATIONS

NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P_m	Flow Temp. Factor Ft.	Gravity Factor Fg	Super Compress. Factor, Fpv	Rate of Flow Q, Mcfd
1	11.00		330	1,000	1.240	1.035	4658.2
2.							
3.							
4.							
5.							

NO.	P_t	Temp. °R	T_r	Z
1.				
2.				
3.				
4.				
5.				

Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.
Specific Gravity Separator Gas _____ XXXXXXXXX
Specific Gravity Flowing Fluid XXXXX _____
Critical Pressure _____ P.S.I.A. _____ P.S.I.A.
Critical Temperature _____ R _____ R

P_c 1529 P_c^2 2337.8

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1		1121	1256.6	1081.2
2				
3				
4				
5				

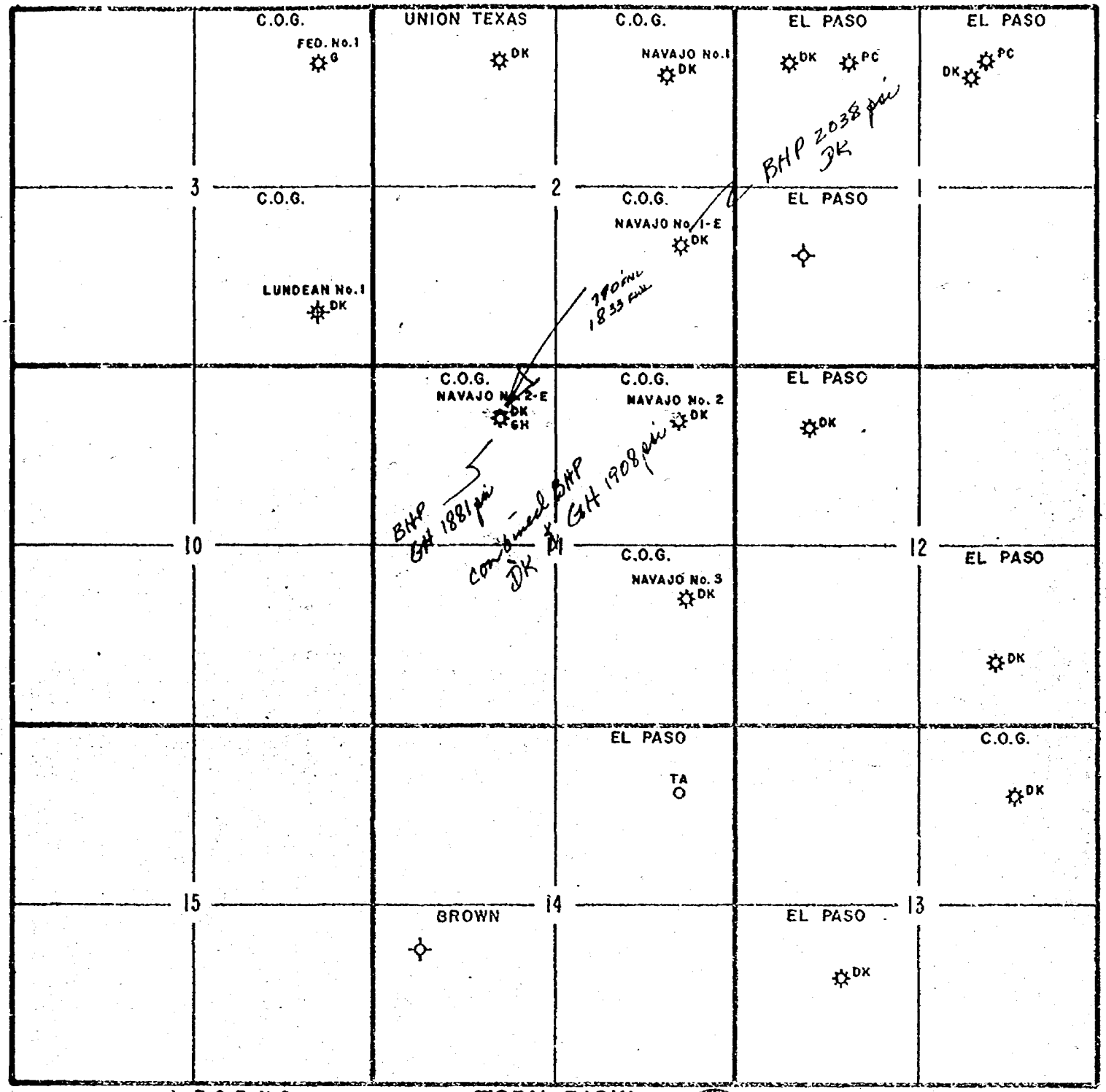
(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 2.1622$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.7830$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 8306.5$

Absolute Open Flow 8306.5 Mcfd @ 15.025 | Angle of Slope θ _____ | Slope, n .75

Remarks:

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	Cecil McKenzie	Neil Tefteller	



LEGEND

T25N-R10W

Consolidated Oil & Gas, Inc.

O LOCATION	GAS INJECTION
DRY HOLE	WTR. INJECTION
OIL WELL	NT NOT TESTED
ABND. OIL WELL	NP NOT PENETRATED
GAS WELL	NS NO SHOW
ABND. GAS WELL	
OIL & GAS WELL	
ABND. OIL & GAS WELL	

BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISION
COG EXHIBIT NO. 1
CASE NO. 7159

PROSPECT :

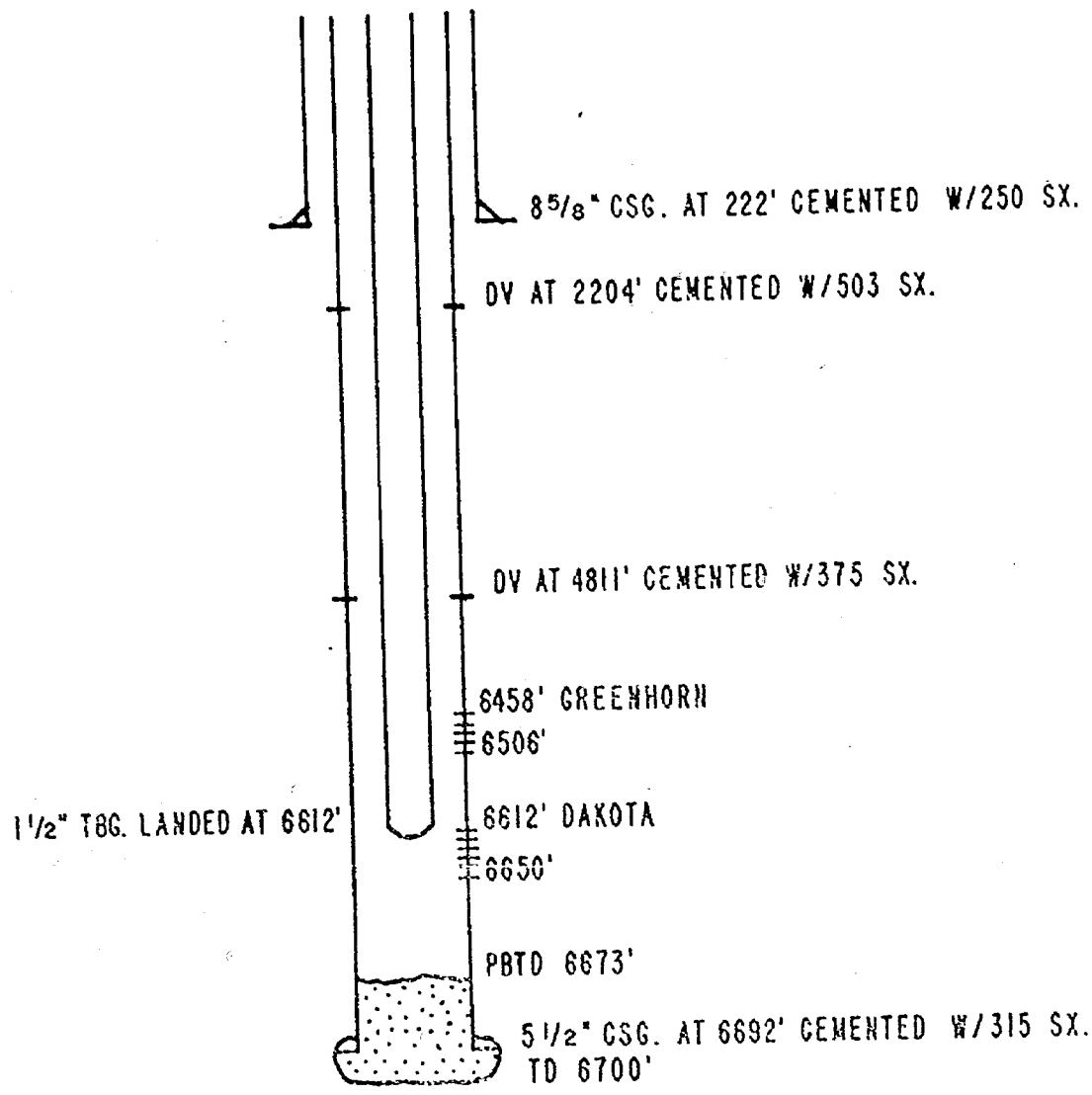
COUNTY : SAN JUAN STATE: NEW MEXICO.

CONTOURED ON:

CONTOUR INTERVAL :

SCALE : 1" = 2,000' DATE :

NAVAJO No. 2-E
790' FNL / 1833' FWL
SEC. 11, T25N-R10W
SAN JUAN COUNTY, NEW MEXICO



BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISION
COG EXHIBIT NO. 2
CASE NO. 7159

NAVAJO 2-E

C-Sec. 11, T25N, R10W
San Juan County, New Mexico

WELL DATA:

Dakota Zone

Perfs 6612-6650. 1 shot every 2 feet
Frac'd with 45,000 gal. 40# crosslink gel containing 40,000# 20-40 sand and 368,000 SCF N_2

Greenhorn Zone

Perfs 6458, 64, 68, 72, 76, 80, 84, 88, 92, 96, 6501 and 6506
Frac'd with 15,000 gal. 40# crosslink gel containing 6000# 100 mesh sand as FLA, 12,000# 20-40 sand and 182,000 SCF N_2.

Tested as follows:

1/23/81 Swabbed and recovered total of 22 BO + 8 BWL in 8 hrs. Swabbing 1 - 1-1/2 BOPH at end of day. Very little gas.

1/24/81 Swabbed and recovered 24 BO in 10 hrs. Swabbing 1/4 - 1 BOPH last 5 hrs. Very little gas.

1/25/81 Shut down for Sunday

1/26/81 Flowed off head and swabbed. Recovered total of 24 BO. Shut in for buildup. Gravity of oil was 38.5° @ 60°.

1/28/81 Pulled bomb. BHP @ 6300' was 1881# after 44 hrs. shut-in time. Reversed out 22 BO and proceeded with completion.

Commingled Dakota-Greenhorn

AOF of commingled zones run on 2/11/81 was 8306 Mcf/day. The well produced 22 BO and 10 bbls. of load water during the 3-hr. flow period. The oil gravity of 48.1° at 60° indicates approximately 6-1/2 BO was produced from Greenhorn and 5-1/2 BO from Dakota. The BHP @ 6554' was 1908#.

General Data:

1. The oil gravities of recent Dakota condensate sales from both the Navajo No. 1 and Navajo No. 2 were 59.5° @ 60°.

2. The Dakota zone in the area produces 1.30 bbl/MMcf based on cumulative oil and gas production from the Navajo No. 1, No. 2, No. 3, and Lundean No. 1

3. No BHP was run on the Dakota zone in the Navajo No. 2-E, but one was run in the nearby Navajo No. 1-E. The BHP @ 6735' was 2038#.

BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISION
COG EXHIBIT NO. 4
CASE NO. 7159

NEW MEXICO OIL CONSERVATION COMMISSION
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

Type Test: [X] Initial [ ] Annual [ ] Special		Test Date: 2-9-81	
Company: Consolidated Oil and Gas, Inc.	Connection		
Pool: Basin Dakota	Formation: Dakota		Unit
Completion Date	Total Depth: 6700'	Plug Back TD: 6673	Elevation: 6780' KB
Farm or Lease Name: Navajo			
Csg. Size: 5½ / Wt.: 15.5 / d: 4.950 / Set At: 6875	Perforations: From 6458 To 6650		Well No.: 2-E
Tbg. Size: 1½ / Wt.: 2.9 / d: 1.610 / Set At: 6616	Perforations: From To		Unit: C / Sec.: 11 / Twp.: 25 / Rge.: 10
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Single	Packer Set At		County: San Juan
Producing Thru: Tubing	Reservoir Temp. °F: 166 @ 6554	Mean Annual Temp. °F	Baro. Press. – P_a: 12.0
			State: New Mexico

L	H	Gg	% CO_2	% N_2	% H_2S	Prover	Meter Run	Taps
		.650 est				6" nipple		

	FLOW DATA				TUBING DATA		CASING DATA		
NO.	Prover Line Size	X Orifice Size	Press. p.s.i.g.	Diff. h_w	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	Temp. °F	Duration of Flow
SI	9 days					1493		1517		
1.	2 x 3/4					318	60	1109		3 hrs.
2.										
3.										
4.										
5.										

RATE OF FLOW CALCULATIONS

NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P_m	Flow Temp. Factor Ft.	Gravity Factor Fg	Super Compress. Factor, Fpv	Rate of Flow Q, Mcfd
1	11.00		330	1.000	1.240	1.035	4658.7
2.							
3.							
4.							
5.							

NO.	P_t	Temp. °R	T_r	Z
1.				
2.				
3.				
4.				
5.				

Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.
Specific Gravity Separator Gas _____ XXXXXXXXX
Specific Gravity Flowing Fluid XXXXX _____
Critical Pressure _____ P.S.I.A. _____ P.S.I.A.
Critical Temperature _____ R _____ R

P_c 1529 P_c^2 2337.8

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1		1121	1256.6	1081.2
2				
3				
4				
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 2.1622$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.7830$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 8306.5$

Absolute Open Flow 8306.5 Mcfd @ 15.025 | Angle of Slope θ _____ | Slope, n .75

Remarks: _____

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	Cecil McKenzie	Neil Tefteller	

Dockets Nos. 8-81 and 9-81 are tentatively set for March 11 and 25, 1981. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: EXAMINER HEARING - WEDNESDAY - FEBRUARY 25, 1981

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

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

CASE 7157: Application of Carl A. Schellinger for a unit agreement, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks approval for the Campbell Station Unit Area, comprising 3,841 acres, more or less, of State lands in Townships 8 and 9 South, Range 27 East.

CASE 7158: Application of Grynberg & Associates for a unit agreement, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks approval for the Silman Lake Unit Area, comprising 13,743 acres, more or less, of State and fee lands in Townships 9 and 10 South, Ranges 26 and 27 East.

CASE 7159: Application of Consolidated Oil & Gas, Inc. for downhole commingling, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Greenhorn and Dakota production in the wellbore of its Navajo Well No. 2-E located in Unit C of Section 11, Township 25 North, Range 10 West.

CASE 7160: Application of Harlan Drilling Company for an unorthodox gas well location, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of a well to be drilled 2370 feet from the North line and 1528 feet from the West line of Section 31, Township 29 North, Range 11 West, Fulcher Kutz-Pictured Cliffs Pool, the NW/4 of said Section 31 to be dedicated to the well.

CASE 7148: (Continued from February 11, 1981, Examiner Hearing)

Application of Twin Montana Oil Company for a non-standard oil proration unit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of an 80-acre Vada-Pennsylvanian oil proration unit comprising the S/2 NE/4 of Section 3, Township 9 South, Range 35 East, to be dedicated to its Webb Federal Well No. 1 located in Unit G of said Section 3.

CASE 7051: (Continued from January 28, 1981, Examiner Hearing)

Application of Petro Lewis Corporation for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Blinebry and Drinkard production in the wellbore of its L. G. Warlick "B" Well No. 2 located in Unit G of Section 19, Township 21 South, Range 37 East.

CASE 7140: (Continued from February 11, 1981, Examiner Hearing)

Application of Yates Petroleum Corporation for compulsory pooling and an unorthodox location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Morrow formation underlying the N/2 of Section 26, Township 21 South, Range 26 East, to be dedicated to a well to be drilled at an unorthodox location 660 feet from the North line and 1650 feet from the East line of said Section 26. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as operator of the well, and a charge for risk involved in drilling said well.

CASE 7149: (Continued from February 11, 1981, Examiner Hearing)

Application of John H. Hendrix Corporation for the extension of the vertical limits of the Langlie Mattix Pool, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the contraction of the vertical limits of the Jalmat Pool and the upward extension of the vertical limits of the Langlie Mattix Pool to a depth of 3362 feet, subsurface, underlying Unit O of Section 19, Township 23 South, Range 37 East.

CASE 7161: Application of John Yuronka for four compulsory poolings, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Langlie Mattix Pool underlying the four 40-acre proration units comprising the SW/4 of Section 31, Township 22 South, Range 37 East, to be dedicated to wells to be drilled at standard locations thereon. Also to be considered will be the cost of drilling and completing said wells and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as operator of the wells, and a charge for risk involved in drilling said wells.

CASE 7162: Application of McCulloch Oil & Gas Company for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the McKee formation underlying the E/2 of Section 25, Township 20 South, Range 38 East, to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as operator of the well, and a charge for risk involved in drilling said well.

CASE 7163: Application of ARCO Oil and Gas Company for the extension of the vertical limits of the Langlie Mattix Pool, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the contraction of the vertical limits of the Jalmat Pool and the upward extension of the vertical limits of the Langlie Mattix Pool by 165 feet underlying the NE/4 SE/4 of Section 35, Township 23 South, Range 36 East.

CASE 7164: Application of ARCO Oil and Gas Company for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Devonian and Ellenburger formations, Custer Field, underlying the N/2 of Section 6, Township 25 South, Range 37 East, to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as operator of the well, and a charge for risk involved in drilling said well.

CASE 7165: Application of ARCO Oil and Gas Company for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Langley-Ellenburger Pool underlying the N/2 of Section 33, Township 22 South, Range 36 East, to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as operator of the well, and a charge for risk involved in drilling said well.

CASE 7166: Application of Inexco Oil Company for a unit agreement, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the Chosa Draw Unit Area, comprising 2,560 acres, more or less, of Federal and State lands in Townships 25 and 26 South, Range 25 East.

CASE 7167: Application of Inexco Oil Company for a unit agreement, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks approval for the Made Well Anticline Unit Area, comprising 39,238 acres, more or less, of State, Federal, and fee lands in Townships 12, 13, and 14 South, Ranges 21 and 22 East.

CASE 7168: Application of Cavalcade Oil Corporation 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 into an unlined surface pit located in Unit K or L of Section 33, Township 18 South, Range 30 East.

CASE 7129: (Continued from February 11, 1981, Examiner Hearing)

Application of Koch Exploration Company for compulsory pooling, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Dakota formation underlying the N/2 of Section 28, Township 28 North, Range 8 West, to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as operator of the well, and a charge for risk involved in drilling said well.

CASE 7169: Application of Koch Exploration Company for compulsory pooling, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Dakota formation underlying the S/2 of Section 22, Township 28 North, Range 8 West, to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as operator of the well, and a charge for risk involved in drilling said well.

CASE 7170: Application of Threshold Development Company for an NGPA determination, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks a new onshore reservoir determination in the Atoka and Morrow formations for its Conoco 10A State Well No. 1Y in Unit F of Section 10, Township 19 South, Range 29 East.

CASE 7171: Application of Zia Energy Inc. for a non-standard gas proration unit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of a 120-acre non-standard proration unit in the Eumont Gas Pool comprising the SW/4 SE/4 of Section 27, and the N/2 NE/4 of Section 34, Township 20 South, Range 36 East, to be dedicated to its Elliott "A" State Well No. 1 located 660 feet from the South line and 1980 feet from the East line of said Section 27.

CASE 7172: Application of Caulkins Oil Company for two unorthodox gas well locations, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of the following two wells on its Breech A Lease to be recompleted in the Chacra, Mesaverde, and Dakota formations: No. 157 located 1980 feet from the North line and 660 feet from the West line of Section 10 and No. 629 located 660 feet from the North line and 760 feet from the West line of Section 9, both in Township 26 North, Range 6 West.

CASE 7173: Application of V-F Petroleum Inc. for an unorthodox well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of a well to be drilled 330 feet from the North line and 1150 feet from the East line of Section 5, Township 16 South, Range 38 East, South Denton-Devonian Pool, the NE/4 NE/4 of said Section 5 to be dedicated to the well.

CASE 7174: Application of Jake L. Hamon for an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of a well to be drilled 660 feet from the South and West lines of Section 36, Township 23 South, Range 26 East, South Carlsbad-Morrow Gas Pool, the S/2 of said Section 36 to be decicated to the well.

CASE 7175: Application of Conoco Inc. for compulsory pooling and a dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Wolfcamp-Ellenburger formations underlying the S/2 of Section 19, Township 25 South, Range 37 East, to be dedicated to a well to be drilled at a standard location and dually completed in the Devonian and Ellenburger formations. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as operator of the well, and a charge for risk involved in drilling said well.

LINCOLN TOWER BUILDING
1860 LINCOLN STREET
DENVER, COLORADO 80295
(303) 861-5252

Consolidated Oil & Gas, Inc.

January 30, 1981

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

Case 7159

Re: Navajo No. 2-E

Gentlemen:

Enclosed please find three copies of Consolidated's application for downhole commingling. I would appreciate it if you could set this for hearing on February 25, 1981.

Very truly yours,

CONSOLIDATED OIL & GAS, INC.

Lynn Teschendorf
Attorney

LHT/mek

BEFORE THE
OIL CONSERVATION DIVISION
STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION
OF CONSOLIDATED OIL & GAS, INC.
FOR DOWNHOLE COMMINGLING, SAN
JUAN COUNTY, NEW MEXICO

Case No. 7159

APPLICATION

Comes now Consolidated Oil & Gas, Inc. by and through its undersigned attorney and seeks an order approving the downhole commingling of Greenhorn and Dakota production in the wellbore of its Navajo Well No. 2-E, located in Unit C of Section 11, Township 25 North, Range 10 West, San Juan County, New Mexico, and as grounds therefore states:

1. Applicant is the operator and an owner of interest in and under the N/2 of said Section 11.

2. Applicant has dedicated said unit to its Navajo Well No. 2-E, spudded on December 7, 1980.

3. This well was originally drilled as a Dakota producer and 5½ inch casing has been set. Tests now show that the Greenhorn may be economically productive of oil, but the casing is too narrow for a second string of tubing for use with rods and a pumping unit. Gas lift is thus required to lift the oil to the surface. The applicant therefore wishes to downhole commingle the well in order to provide sufficient gas lift from the Dakota to flow the Greenhorn.

4. The pressures in both zones are similar.

5. Some liquids may also be produced from the Dakota, but the commingled fluids will be compatible.

6. The ownership of both zones is identical.

7. Both the Greenhorn and the Dakota are expected to be capable of marginal production only.

8. A copy of this application has been sent to all offset operators.

9. The granting of this application will be in the best interests of conservation, the prevention of waste, and the protection of correlative rights.

WHEREFORE, applicant requests that this matter be set for hearing before the Division or its duly appointed examiner, and that the Division enter its order granting the relief sought herein.

Respectfully submitted,

CONSOLIDATED OIL & GAS, INC.

By _____
Lynn Teschendorf, Attorney
1860 Lincoln Street #1300
Denver, Colorado 80295

BEFORE THE
OIL CONSERVATION DIVISION
STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION
OF CONSOLIDATED OIL & GAS, INC.
FOR DOWNHOLE COMMINGLING, SAN
JUAN COUNTY, NEW MEXICO

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CONSOLIDATED OIL & GAS, INC.

By _____
Lynn Teschendorf, Attorney
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Denver, Colorado 80295

BEFORE THE
OIL CONSERVATION DIVISION
STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION
OF CONSOLIDATED OIL & GAS, INC.
FOR DOWNHOLE COMMINGLING, SAN
JUAN COUNTY, NEW MEXICO

Case No. 7159

APPLICATION

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3. This well was originally drilled as a Dakota producer and 5½ inch casing has been set. Tests now show that the Greenhorn may be economically productive of oil, but the casing is too narrow for a second string of tubing for use with rods and a pumping unit. Gas lift is thus required to lift the oil to the surface. The applicant therefore wishes to downhole commingle the well in order to provide sufficient gas lift from the Dakota to flow the Greenhorn.

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9. The granting of this application will be in the best interests of conservation, the prevention of waste, and the protection of correlative rights.

WHEREFORE, applicant requests that this matter be set for hearing before the Division or its duly appointed examiner, and that the Division enter its order granting the relief sought herein.

Respectfully submitted,

CONSOLIDATED OIL & GAS, INC.

By _____
Lynn Teschendorf, Attorney
1860 Lincoln Street #1300
Denver, Colorado 80295

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. 7159

Order No. R-6620

APPLICATION OF CONSOLIDATED OIL & GAS, INC.

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 February 25, 19 81, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

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

FINDS:

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

(2) That the applicant, Consolidated Oil & Gas, Inc., is the owner and operator of the Navajo Well No. 2-E, located in Unit C of Section 11, Township 25 North, Range 10 West, NMPM, San Juan County, New Mexico.

(3) That the applicant seeks authority to commingle Greenhorn oil and Dakota oil and gas production within the wellbore of the above-described well.

(4) That from the Greenhorn zone, the subject well is capable of low marginal oil production only with little or no gas.

(5) That ~~from the Dakota zone, the~~ so cased that it is impracticable to effect a dual completion thereof. 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~~ the Greenhorn formation, thereby preventing waste, and will not violate correlative rights.

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

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

(9) That in order to allocate the commingled production to each of the commingled zones in the subject well, 55 percent of the commingled oil production should be allocated to the Greenhorn zone, and 45 percent of the commingled oil production and all of the gas production to the Dakota 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, Consolidated Oil & Gas, Inc., is hereby authorized to commingle Greenhorn and Dakota production within the wellbore of the Navajo Well No. 2-E, located in Unit C of Section 11, Township 25 North, Range 10 West, NMPM, San Juan County, New Mexico.

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

~~(ALTERNATE)~~

(2) That 55 percent of the commingled oil production shall be allocated to the Greenhorn zone and 45 percent of the commingled oil and all of the gas production shall be allocated to the Dakota 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.