

CASE 3221: Appli. of SHORELINE

—EXPL. CO. for unorthodox location —
and special cementing and casing
—program, Lea County, New Mexico. —

CASE NO.

3221

Application,

TRANSCRIPTS,

Small Exhibits

ETC.

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
COMMISSION OF NEW MEXICO FOR
THE PURPOSE OF CONSIDERING:

CASE NO. 3221
ORDER No. R-2899

APPLICATION OF SHORELINE EXPLORATION
COMPANY FOR AN UNORTHODOX LOCATION
AND SPECIAL CEMENTING AND CASING
PROGRAM, LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on March 24, 1965, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 21st day of April, 1965, the Commission, a quorum being present, 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 Commission has jurisdiction of this cause and the subject matter thereof.
- (2) That the applicant, Shoreline Exploration Company, seeks authority to drill its Snyder Well No. 2 at an unorthodox location in the West Teas Yates-Seven Rivers Pool 1090 feet from the South line and 2310 feet from the East line of Section 16, Township 20 South, Range 33 East, NMPM, Lea County, New Mexico.
- (3) That due to an existing pipeline the subject well cannot be drilled at a standard location 990 feet from the South line and 2310 feet from the East line of said Section 16.
- (4) That the applicant owns the working interest in the West Teas Yates-Seven Rivers Pool in the 40-acre tract offsetting the proposed location to the North.

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Case No. 3221

Order No. R-2899

(5) That the applicant also seeks approval of a special cementing and casing program for the subject well as an exception to the casing and cementing rules prescribed for the potash-oil area by Order No. R-111-A.

(6) That potash development does not presently exist and is not presently contemplated within the vicinity of the proposed well.

(7) That approval of the proposed unorthodox location and a special casing and cementing program for the subject well will prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

1. That the applicant, Shoreline Exploration Company, is hereby authorized to drill its Snyder Well No. 2 at an unorthodox location in the West Teas Yates-Seven Rivers Pool 1090 feet from the South line and 2310 feet from the East line of Section 16, Township 20 South, Range 33 East, NMPM, Lea County, New Mexico.

2. That as an exception to the provisions of Order No. R-111-A the applicant is hereby authorized to complete and abandon its Snyder Well No. 2 as follows:

CASING, CEMENTING, AND ABANDONMENT PROCEDURE

(1) Surface Casing String:

(a) Applicant shall set 8 5/8", 10 3/4", or 11 3/4" surface casing at a depth of 350 feet below the surface. Cement shall be circulated back to the surface.

(b) Cement shall set a minimum of 12 hours before drilling the plug or initiating tests.

(2) Production String:

(a) If production is encountered, applicant shall set a production string of 4 1/2" casing on top of or through the Seven Rivers formation.

(b) The production string shall be cemented with sufficient cement to protect all pay zones and to fill the annular space behind the pipe a minimum of 1000' above the casing point. Cement shall be allowed to set a minimum of 12 hours before drilling the plug or initiating tests.

(3) Abandonment Procedure:

Upon abandonment of the well, it shall be plugged and abandoned in accordance with the standard statewide rules and regulations of the New Mexico Oil Conservation Commission. Cement plugs of 25 sacks each (100' in length) shall be spotted opposite the pay horizon, below the salt section, above the salt section, and at the base of the shoe of the surface casing, and 10 sacks shall be used at the surface. In addition, 25 sack cement plugs shall be spotted opposite any water bearing horizon encountered while drilling. In the event production string is run and the casing is later cut and pulled, 25 sack cement plugs will be spotted at the point of cut-off.

(4) Applicant shall notify the Hobbs District Office of the date and hour casing is to be run and cemented and the date and hour the well is to be plugged.

3. That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

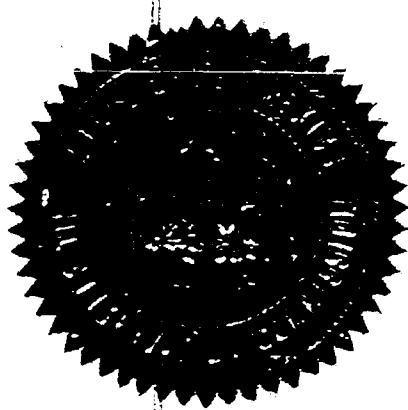
DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

Jack M. Campbell
JACK M. CAMPBELL, Chairman

Glyton B. Hays
GLYTON B. HAYS, Member

A. L. Porter, Jr.
A. L. PORTER, Jr., Member & Secretary



GOVERNOR
JACK M. CAMPBELL
CHAIRMAN

State of New Mexico
Oil Conservation Commission



LAND COMMISSIONER
GUYTON B. HAYS
MEMBER

STATE GEOLOGIST
A. L. PORTER, JR.
SECRETARY - DIRECTOR

P. O. BOX 2088
SANTA FE

April 21, 1965

Mr. James T. Jennings
Attorney at Law
Post Office Box 1180
Roswell, New Mexico

Re: Case No. 3221
Order No. R-2899
Applicant:
SHORELINE EXPLORATION CO.

Dear Sir:

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

Very truly yours,

A. L. Porter, Jr.
A. L. PORTER, Jr.
Secretary-Director

ir/

Carbon copy of order also sent to:

Hobbs OCC x

Artesia OCC

Aztec OCC

OTHER Mr. Fincher Neal

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico

EXAMINER HEARING

IN THE MATTER OF: Application of Shoreline
Exploration Company for an unorthodox
location and special cementing and casing
program, Lea County, New Mexico.

Case No. 3221

BEFORE: Daniel S. Nutter, Examiner.

TRANSCRIPT OF HEARING

DEARNLEY-MEIER REPORTING SERVICE, Inc.

FARGINGTON, N. M.
PHONE 325-1162

SANTA FE, N. M.
PHONE 983-3971

ALBUQUERQUE, N. M.
PHONE 243-6691

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BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
March 24, 1965

EXAMINER HEARING

-----)
IN THE MATTER OF: Application of)
Shoreline Exploration Company for an)
unorthodox location and special cementing)
and casing program, Lea County, New)
Mexico. Applicant, in the above-styled)
cause, seeks authority to drill and)
complete its Snyder #2 at an unorthodox)
location 1090 feet from the South line)
and 2310 feet from the East line of)
Section 16, Township 20 South, Range 33)
East, Lea County, New Mexico. Casing,)
cementing and plug and abandon procedure)
would conform to statewide rules and)
regulations, and would be in exception)
to the casing and cementing rules)
prescribed for the oil and potash area)
by Order No. R-111-A.)
-----)

Case No. 3221

BEFORE: Daniel S. Nutter, Examiner

TRANSCRIPT OF HEARING

MR. NUTTER: We will proceed with Case Number 3221.

MR. DURRETT: Application of Shoreline Exploration
Company for an unorthodox location and special cementing and
casing program, Lea County, New Mexico.

MR. JENNINGS: James T. Jennings of Roswell, appearing
for Shoreline, and I have one witness, Mr. Charles B. Read of



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Shoreline.

MR. NEAL: Mr. Fincher Neal of Carlsbad, Neal and
Matkins, representing Harroun and Hayworth.

MR. DURRETT: Who are you representing?

MR. NEAL: Harroun and Hayworth.

(Witness sworn.)

CHARLES B. READ, called as a witness, having been first
duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. JENNINGS:

Q Would you state your name, please?

A Charles B. Read.

Q Would you state your occupation?

A I am Vice-President of Shoreline.

Q What is your educational background?

A I have a B. S. Degree in petroleum engineering from the
University of Oklahoma; graduated in 1943.

Q What has been your training since the completion of your
education?

A I have been engaged in the oil business in the drilling
of wells, operating of oil and gas lease properties.

Q Have you had occasion in the past to testify before
this Commission?

A Yes. I have.



MR. JENNINGS: Is the Examiner satisfied with his qualifications?

MR. NUTTER: Yes, sir.

(Whereupon, Applicant's Exhibits A through H marked for identification.)

Q (By Mr. Jennings) Mr. Read, you have filed an application for unorthodox location. Would you explain to the Commission the location of the proposed location and the reason for it?

A Upon a survey of the land we found that a regular location which would be located 990 feet from the South line and 2310 feet from the East line of Section 16, Township 20 South, Range 33 East, conflicted with a pipeline right-of-way, which would be in conflict with our drill site for our proposed test.

It is our desire to move the location 100 feet to the north, which would be an unorthodox location, and would be located 1090 feet from the South line and 2310 feet from the East line of the same section, township and range.

Q Referring to Exhibit , I believe it's "F", Mr. Read, would you state exactly where that pipeline goes across that section of Section 16?

A Well, the pipeline crosses the drilling pad -- I mean it would be right over the drill site where we would have our mud pits. It's possible that the location of the drilling rig

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would be immediately over the pipeline.

MR. NUTTER: Is that this exhibit here?

MR. JENNINGS: Yes.

MR. NUTTER: This is labeled "H".

MR. JENNINGS: I am sorry.

Q (By Mr. Jennings) That, in effect is crowding the north line of the quarter-quarter section?

A That's correct.

Q Who is the operator of the property to the north?

A Our company owns the oil and gas lease covering the shallow rights, which is the proposed depth to which we plan to drill, on the 40-acre sub-division which would be the north offset.

Q You have a producing well from the same proposed horizon in that location?

A Yes.

Q Mr. Read, what type of well do you anticipate at this location?

A We expect to get a marginal well of 20, 25 barrels of oil per day.

Q Is the proposed location in the potash area as defined by Rule 111-A?

A Yes, it is.

Q Referring to Exhibit "A", Mr. Read, would you identify

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that, please?

A The area outlined in red --

Q Tell what it is first.

A Well, this is a potash map showing the ownership of leases for potash mining, and applications for potash mining leases covering the area in question, and this is the location of our proposed well in Section 16, Township 20 South, Range 33 East. The area outlined in red is the oil-potash area which has been designated by New Mexico Conservation Commission Order R-111-A.

Q What potash leases are shown within a one-mile area of the proposed location of your well?

A The U. S. Borax and Chemical Company own the lease under all of Section 16, which is the section in which we're going to drill a well. They own the potash mining lease on the same tract of land on which we propose to drill.

Immediately to the north, R. G. Hayworth and Mr. Harroun, or Harroun and Hayworth own leases to the north, which are approximately seven-eighths of a mile to the north.

The acreage in Section 15, which is one-half mile to the east is not leased for potash, neither is Section 22, which is diagonally southeast approximately half a mile is not leased for potash.

The Section 21, immediately south, is not leased for



potash, and Section 20 is vacant, and in Section 17, U. S. Borax and Chemical Company have 160 acres, and the remainder of the section is vacant from a leasing standpoint, or potash mining leasing standpoint; it's a dormant area, at the present time.

The area shown here to the west, which is approximately seven to eight miles, is the only open mined area in the immediate vicinity on this map. Any other mines are at a greater distance farther west and this open mined area is owned by the National Potash Company.

Q Mr. Read, are all the major potash developments and mines farther west of this?

A Yes, they are approximately six or seven miles due west and northwest and southwest of this.

Q Do you know of any other potash development in the immediate area of the proposed location of your well?

A No, sir.

Q Mr. Read, would you explain your reason for making the request to the Commission for exception from Rule 111-A?

A Our reason at this time is, we feel that the casing and cementing program as required by New Mexico Oil Conservation Commission Order R-111-A is unnecessary, and we feel that we can adequately protect the potash zone with a revised casing and cementing program which would be in accordance with state-

wide rules and regulations.

Q Mr. Read, have you made some studies to determine the approximate cost of your drilling and completing the well, and of the well as a dry hole, if you comply with the provisions of Rule 111-A, as compared with compliance with the ordinary Commission rules?

A Yes, I have.

Q Would you please refer to Exhibits "B" and "C", and identify each of these exhibits, and explain to the Examiner what they reflect?

A The Exhibit "B" reflects the cost of casing, cementing of casing, and plugging and abandoning expense in the event of a dry hole, which would be required in accordance with Order R-111-A.

The surface casing, the salt protection string and the production string, and the plugging and abandoning expense have been itemized.

This exhibit, of course, does not include any drilling cost, or other services, but reflects only the cost of what we propose to revise in the terms of an alternate casing and cementing program.

Q Mr. Read, referring to Exhibit "A", what is your estimate of the cost of a producing oil well, in the event that you comply with Rule R-111-A?

A Well, I think that's Exhibit --

Q Exhibit "B", excuse me.

A Exhibit "B" refers to the cost of cementing and casing program, and plugging and abandoning expense, if necessary, in the event of a dry hole. The total figures have been broken down, and the total cost, or this cost of casing, cementing and plugging and abandoning for a producing oil well would amount to \$23,372.00. That's on Exhibit "B". That is the cost of a producing well. The cost of a dry hole under this same program is \$20,460.00.

Q Just roughly, what items would be included in your cost of a producing well? What items have you included to reach this \$23,000.00 figure?

A Well, the \$23,000.00 figure includes the cost of the surface casing and the cementing of same. The engineering supervision and rig time which would be necessary to run the casing, and rig time waiting for the cement to set up.

It would also include the salt protection string of 2,935 feet of 7-inch casing, the cementing, the cost of perforating that casing to cement and circulate your cement back to surface; rig time to run the casing and W. O. C. time for the cement to set up; engineering supervision and rig time to drill a cement plug, and miscellaneous equipment to go along with the running of the cement.

MR. NUTTER: Mr. Read, for the benefit of the record, would you describe the casing and cementing program which would be required under the terms of R-111-A, and also the casing and cementing program that you propose here in lieu of that program?

A Yes, sir. Rule R-111-A requires the setting of surface pipe down to the top of the salt, which in this case and in this area would be 1275 feet of eight -- It doesn't specify the size of the casing, it specifies only the setting depth, and requires that the cement be circulated back to the surface with 150 percent of the circulated cement volume to be used.

Our proposal is to revise this casing program and set 350 feet of surface pipe and circulate the cement which is standard procedure in this area, outside of the potash area. It would comply with the statewide rules and regulations.

The salt protection string, as required by Rule R-111-A requires that an intermediate string of pipe be set 100 feet below the base of the salt, and in this case the seating depth would be approximately 2,935 feet below the surface.

The R-111-A requires that this salt protection string be set and cemented, and cement circulated back to the surface, and it requires that the salt protection string be run and set before the producing horizon, or the expected oil zone is encountered.

The setting depth of 2935 feet is above the Yates formation,

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and R-111-A requires that this intermediate pipe be set prior to drilling into either the Yates or the Queen formation, or any expected producing horizon. It is our proposal to omit this salt protection string entirely for the reason that we have a marginal well, we're going to be structurally low. It's very possible we will get a dry hole, and we would like to evaluate the reservoir by drilling into it first.

We would bail test it with a cable tool rig and run an electric log. We can determine by log analysis if we have a commercial reservoir, or the quality of the well, and then in that event, we would make a decision as to whether to plug and abandon, or run an oil string of protective casing to total depth.

We don't feel at this time that the intermediate string of casing is necessary because the zone that we're going to be testing and drilling is well known and familiar to knowledgeable people in the oil business in this area. It's a low pressure gas zone in the Yates. I mean, there's very little gas, practically no gas at all. The Queen formation does not have any gas at all, the gas is too small to measure in the Queen. The bottom hole pressures are small; all safety precautions can be complied with insofar as protecting any salt deposit that might be in the area, or potash deposit.

The Rule R-111-A requires that in the event the well is

plugged and abandoned as a dry hole, that a solid column of cement be put in the hole from total depth back to and covering all of the salt formation. It is our proposal that in the event of a dry hole that the Yates formation and the Queen formation be isolated and protected by standard operating procedures of 25 sacks, or 100 foot plug, which would shut off any bottom hole productive formation, or shows of either, small shows of oil or gas or water. We would put a cement plug below the base of the salt formation which is ordinarily the area that you expect to find potash.

MR. NUTTER: Would that be a 25-sack plug?

A Yes, sir. We'd put a 25-sack plug above the salt formation which would protect the potash from any surface water or down-hole contamination. We would put a 25-sack plug at the base of our surface pipe, and a 10-sack plug at the surface as a final sealer. We would spot heavy mud between all cement plugs and comply with standard statewide rules and regulations insofar as plugging and abandoning procedure is concerned.

In addition, Rule R-111-A requires 24 hours of waiting on cement time and since this Rule R-111-A was written several years ago, why additives and chemicals have been discovered that we could mix with our cement that would give adequate strength within 12 hours, and we would propose that waiting on cement time be reduced from 24 hours to 12 hours.

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The entire proposal, to run a casing and cementing program in this well in accordance with present statewide rules and regulations, and we request a waiver from the requirements of the Oil Conservation Commission Order R-111-A.

In our review of costs and estimated cost, the difference between the cost of our R-111-A producing well, we figure, would cost to comply with this regulation, would cost \$23,372.000. To run a casing and cementing program in accordance with the statewide rules and regulations, the cost of a producing well casing and cementing program would be \$8,730.00. This difference then to us as an operator, is an additional expense of \$14,642.00, which we think is unnecessary in the event a producing well should be encountered.

In the event we get a dry hole under the same requirements of R-111-A. our cost would be \$20,460.00, and under the statewide rules and regulations, our cost of a dry hole for casing and cementing, would be \$2,870.00, which would leave an additional excess expense to us of \$17,590.00 to meet the requirements of Order R-111-A. We feel that's unnecessary.

Q (By Mr. Jennings) Mr. Read, have you notified the potash companies who have leases within one mile of your proposed location of your intention?

A Yes, I have. I don't know whether we injected here Exhibit "C" into the record.



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Q We will.

A Okay. Yes, I have notified the potash companies.

Q Which companies are those?

A U. S. Borax and Chemical Company, and Harroun and Hayworth.

Q I hand you what has been marked Exhibit "E", and ask you to identify that.

A This is a letter dated March the 11th, 1965, to United States Borax and Chemical Company, together with a notice of our intention to drill.

Q Is that the original communication to that company?

A No, it isn't, this is a copy here.

Q Does that reflect a change in the proposed casing program?

A There was a letter prior to this.

Q Just answer the question.

(Whereupon, Applicant's Exhibit I marked for identification.)

Q I hand you Exhibit "I" and ask you to identify that please,

A This is a letter dated March 4, 1965, from Shoreline Exploration Company, to United States Borax and Chemical Company, outlining our revised casing program. It contains a reply from the U. S. Borax and Chemical Company, dated March 10th,



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approving our casing program.

Q Does that letter also advise them of your drilling in the area?

A Yes.

Q And that the purpose of your application, that you want to be relieved from the obligation of complying with Rule R-111-A?

A Yes, sir.

Q Did they object to that, or consent to your application?

A They had no objections, and consented to the casing program we proposed.

MR. NEAL: Mr. Examiner, I notice a representative for U. S. Borax came in, if he wants to be shown as being present, for the record, Mr. T. E. Jones.

MR. NUTTER: You are Mr. Jones, of U. S. Borax and Chemical?

MR. JONES: Yes, sir.

Q (By Mr. Jennings) Have you notified the other operators in the area?

A Yes, sir, I have.

Q Who is that?

A Harroun and Hayworth.

Q I hand you here what has been marked as Exhibit "F", and ask you to identify that and tell us what it is.

A This is a letter dated March 4th, to Mr. Harroun and Hayworth, outlining our revised casing and cementing program. It also contains a telegram from them approving the casing and cementing program which we have recommended.

Q Mr. Read, have you drilled any wells in the area?

A Yes, sir, we have drilled the north offset to this well.

Q Do you have logs of the well?

A Yes, sir.

Q I believe these logs are on file with the Commission, both here and in Hobbs.

A That's correct, they were filed in Hobbs with the Oil Conservation Commission.

Q Do these logs reflect the potash areas?

A Well, they reflect the top of the salt and the base of the salt, which is the area that you ordinarily expect to find potash.

Q From the information reflected in these logs you know the approximate areas where the cement will need to be set?

A That's correct.

Q Mr. Read, in your opinion, will this -- Would it be wasteful if you were required to comply with the Rule 111-A and do all this additional work?

A Well, it's unnecessary at the present time for protection of the potash zone; we can adequately protect it with the casing program which we have recommended, and it would be a



waste of material and time and money, and completely unnecessary in our opinion, inasmuch as there is no potash being mined in the immediate area.

Q Would this be in the interest of conservation and actually prevent a considerable amount of waste?

A Yes, sir, it would.

MR. JENNINGS: We have no further questions.

CROSS EXAMINATION

BY MR. NEAL:

Q In your Shoreline Number 1, was that Shoreline Snyder Number 1?

A Yes, sir.

Q Did you comply in that particular well, the north offset, with the regulations of R-111-A?

A Yes, sir, we did.

Q Do you know, of your own knowledge, or are you familiar with the Sinclair and Cities Service wells, whether they also complied?

A I presume that they did, yes, sir.

MR. NEAL: That's all.

BY MR. NUTTER:

Q I note on your Exhibit Number "D" -- I see. Will this well be drilled with rotary tools?

A It will be drilled with rotary tools, the combination

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rig. We will drill with rotary down to the top of the salt, and then we'll convert over to a cable tool rig.

Q What control do you have in the event you would encounter some high pressure when you are drilling with these cable tools, after you have penetrated through the salt?

A It would be vented to atmosphere. We would have a bluey line, or we could vent any gas that we might encounter.

Q You wouldn't have any mud in the hole to hold the gas under the pressure?

A No, it would just come out of the top of the hole, or the bluey line.

Q As long as it wasn't confined, you would assume it wouldn't penetrate the potash?

A That is correct. Any testing that we might do, we can isolate the potash zone by a packer if we want to; actually these pressures out here are so low that we just run a bailer in the hole and you can hardly get enough gas to the surface to smell it, let alone build up any pressures, and you run a bailer in there and test for fluid in the bottom of the hole.

Q The Yates and Seven Rivers formations in Southeast New Mexico, do occasionally yield high pressure pockets of gas where they're not expected though, don't they?

A That's correct. But there have been eight wells drilled in this immediate area, and so far to date the nature of this

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reservoir does not indicate any high pressure gas. I think the eight wells are conclusive to us to observe any safety precautions that would be necessary. We have no gas at all in the north offset. It was actually too small to measure in the Yates formation. We had, it was practically nil.

Q What kind of pressures are in this formation?

A Bottom hole pressures?

Q Yes, sir.

A About 1600 pounds.

Q It's your proposal to run your production pipe down into, or at the top of the pay and cement it with 250 sacks. What is the estimated top?

A That will give us a thousand feet of cement behind the pipe, which our total depth in there will be at 30 -- Well, our casing point we would set right in top of the Queen and our casing point would be at 3225 feet below the surface, and 250 sacks of cement would fill up an annular space of 1,000 feet behind the pipe, so the top of your cement would be at 2225 feet below the surface, which completely isolates the Yates and Seven Rivers formation, and would be back up into the salt formation.

Q What is the base of the salt? 2835 I presume.

A Yes, sir.

Q Your salt protection on your exhibit would be 2935, and

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you said that would be a hundred feet below the base?

A Yes.

Q So the base of the salt is 2835?

A Right. So, we'd be, roughly, we'd have cement roughly 600 feet up into the salt formation, approximately.

Q In the event a casing leak developed in the casing above the top of the cement, what protection would there be for the salt?

A Well, it would be vented to atmosphere, the annular space.

Q The annular space of this casing would be vented to the atmosphere?

A We would have eight and five-eighths to surface, and the space between the eight and five-eighths would be, we would have a pressure gauge at the surface which we would observe daily, and if we saw any increase in pressure in our oil string, it would on this pressure gauge possibly indicate a casing leak, and we would have that, I mean we could open a valve and vent it to atmosphere. Actually, the valve would stay open all the time.

Q Now, this cost sheet on Exhibit "B" to comply with the requirements of 111-A; this is the maximum cost. Isn't there an alternative provided in the rules, whereby you can pull one of these strings after setting the other?

dearnley-meier

SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS

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A That's correct, if you are fortunate enough to get the pipe out of the hole. You can go into this kind of a program; eventually you have to salvage this pipe, either now or 20 years from now. If we get a dry hole on our initial drilling program we could have an alternate cementing program in there and tack the casing in, but by the same token, that doesn't assure us that we'll get all the pipe out of the hole because the red beds in this area are known to cave in on top of your pipe, and it's very easy to stick a string of pipe just by sloughing off of your red beds formation and there is risk involved that the casing would not be recovered because of a cave-in of your, and sloughing off of your red bed formation.

Q What did the north offset to this well yield on its potential test?

A Forty-two barrels of oil a day, and it was making about 25 percent water.

Q What's it capable of producing now, the same amount?

A That's about what it's doing.

Q It's holding up?

A Yes, sir, 25 to 30 percent water.

Q The 250 sacks that you propose to run on the production pipe, you estimate will come 1,000 feet above the casing point; is that the actual calculation, or do you have a percentage factor, like 150 percent in mind?

A No, that's theoretical. We're drilling that well with a cable tool rig and the hole is practically a perfect hole. It would be an engage hole, so you have no washouts or any enlargement of your hole condition at all.

Q So, this is the actual calculated fill-up --

A That's right.

Q --based on an engage hole with 250 sacks?

A Yes, sir.

Q Now, your letter of March 4th proposed your casing program using 8 5/8s?

A Yes.

Q And you received the approval to this casing program from Mr. T. E. Jones, geologist, by his letter of March 10th. Then you amended that casing program a little bit to provide an alternative surface pipe size, is that it?

A Yes.

Q In your letter of March 11th?

A The only change we made in the letter of March 11th was to enlarge the surface casing from 8 5/8s to 11 3/4s. The reason for that was, why I was advised there was going to be a shortage of pipe because of the possibility of a steel strike and so forth, and it might be necessary to substitute a larger size casing in lieu of the availability of 8 5/8s inch casing.

Q Then you say Borax approved that amendment?

A They have approved the revised casing to provide for 11 3/4 inch casing.

MR. NEAL: The approval of Harroun and Hayworth, I think it shows 8 5/8s inch casing. Excuse me. You going to put 11 3/4 inch casing --

ME. JENNINGS: It's an alternative in yours.

MR. NUTTER: So your waiver, was it for the alternative program?

MR. NEAL: Yes, either one.

MR. NUTTER: Any further questions of Mr. Read?

MR. DURRETT: I have one question, please.

BY MR. DURRETT:

Q Mr. Read, are these, or is this well going to be a wildcat well --

A No, it's a field development well in the West Teas Field.

Q West Teas?

A Yes, sir. I think there are eight wells in the field, producing wells. This is a development well, or an extension of the field to the south.

Q That is a declared pool?

A Yes, sir.

Q That is a Yates?

A Well, it will be either a Yates or Seven Rivers. I

mean the field itself produces from both horizons, the Yates formation and the Seven Rivers formation.

Q Are both formations within the vertical limits of the pool, or --

A Yes, sir -- No, sir. They are within the vertical limits.

MR. JENNINGS: Mr. Examiner, I would like to offer, in addition to Exhibit "F", attached to Exhibit "F" is a blank copy of Shoreline's letter to Mr. Harroun, and this is a copy which notes its acceptance by Mr. Harroun, and its approval, which was delivered to me this morning by Mr. Neal. That's part of Exhibit "F".

MR. NUTTER: I see.

MR. JENNINGS: We would offer Exhibits A through I.

MR. NUTTER: Applicant's Exhibits A through I will be admitted in evidence.

(Whereupon, Applicant's Exhibits A through I admitted in evidence.)

MR. NUTTER: Were there any further questions of Mr. Read? He may be excused.

(Witness excused.)

MR. NUTTER: Do you have anything further?

MR. JENNINGS: We have nothing further.

MR. NUTTER: Does anyone have anything they wish to offer in Case 3221? We will take the case under advisement.

dearnley-meier reporting service, inc.

SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS

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PAGE 25

STATE OF NEW MEXICO)
) ss.
COUNTY OF BERNALILLO)

I, ADA DEARNLEY, Court Reporter, do hereby certify that the foregoing and attached transcript of proceedings before the New Mexico Oil Conservation Commission at Santa Fe, New Mexico, is a true and correct record to the best of my knowledge, skill and ability.

IN WITNESS WHEREOF I have affixed my hand and notarial seal this 31st day of March, 1965.

Ada Dearnley
Notary Public - Court Reporter

My Commission Expires:
June 19, 1967.

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 3221, heard by me on Mar 24, 1965.

Osborne Examiner
New Mexico Oil Conservation Commission

DOCKET: EXAMINER HEARING - WEDNESDAY - MARCH 24, 1965

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

The following cases will be heard before Elvis A. Utz, Examiner, or Daniel S. Nutter, Alternate Examiner:

- CASE 3219: (Continued from March 10, 1965 Examiner Hearing)
Application of Humble Oil & Refining Company for a waterflood expansion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to expand its State "M" Lease waterflood project by the conversion to water injection of 13 additional wells located in Sections 19, 20, 29, 30 and 31, Township 22 South, Range 37 East, Langlie-Mattix Pool, Lea County, New Mexico.
- CASE 3221: Application of Shoreline Exploration Company for an unorthodox location and special cementing and casing program, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to drill and complete its Snyder #2 at an unorthodox location 1090 feet from the South line and 2310 feet from the East line of Section 16, Township 20 South, Range 33 East, Lea County, New Mexico. Casing, cementing and plug and abandon procedure would conform to statewide rules and regulations, and would be in exception to the casing and cementing rules prescribed for the oil and potash area by Order No. R-111-A.
- CASE 3222: Application of Gulf Oil Corporation for a dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of the dual completion (conventional) of its Harry Leonard (NCT-C) Well No. 11 located in Unit K of Section 36, Township 21 South, Range 36 East, Lea County, New Mexico, to produce oil from an undesignated Blinbry Pool and from the Arrowhead Drinkard Pool through parallel strings of tubing.
- CASE 3223: Application of Tenneco Oil Company for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Wolfcamp formation through the open-hole interval from 10,537 feet to 10,970 feet in its Kemnitz Wolfcamp Unit Well No. 6 located in Unit I of Section 30, Township 16 South, Range 34 East, Lea County, New Mexico.
- CASE 3224: Application of Sinclair Oil & Gas Company for a non-standard proration unit and an unorthodox location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of a 320-acre non-standard gas proration unit comprising the S/2 of Section 1, Township 24 South, Range 36 East, Jalmat Gas Pool, Lea County, New Mexico, to be dedicated to its Curry WN Well No. 1 at an unorthodox location 660 feet from the South and East lines of said Section 1.

OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

Date 4/12/65

CASE 3221

Hearing Date 9 am 3/24/65
DSN @ 3E

My recommendations for an order in the above numbered cases are as follows:

Enter an order authorizing
Shoreline Exploration Co to drill
its Snyder Well No 2 at an unorthodox
location 1090' FSL @ 2310'
FEL of Sec 16, T20S, R33E, W. Teas
Pool, Lea County, N. Mex. Find that
an existing pipeline prevents drilling at
the standard location selected by appli-
cant 990' FSL @ 2310' FEL of 16. Further
that applicant is crowding acreage to the
North, ^{under} which it owns.

Approve an exception to the casing
and cementing regulations for the oil-potash
well as contained in R-111A on the grounds
that there is no ^{known} current or planned potash
development in this vicinity.
Provide that applicant shall use, cement
and abandon well as
shown on attachment.

Shoreline
Exploration Co.

1211 Fort Worth National Bank Building, Fort Worth, Texas
REPLY TO: P. O. BOX 1822, Roswell, New Mexico

March 4, 1965

Mr. Daniel D. Harroun
601 Riverside Drive
Carlsbad, New Mexico

Dear Mr. Harroun:

This letter will confirm my conversation with you regarding the drilling of Shoreline Exploration Co. #2 Snyder located 1090' from the south line and 2310' from the east line of Section 16, Township 20 South, Range 33 East, Lea County, New Mexico. The estimated total depth of this test will be 3250'. The records reflect that United States Borax & Chemical Corporation owns a potash lease under all of Section 16 and Harroun and Hayworth have leases within a mile of the proposed test. There are no other potash leases within a one mile radius of the test well. In accordance with our discussion, we submit for your approval waiver and exceptions to the casing and cementing program and plug and abandon procedure of New Mexico Oil Conservation Commission Order R-111-A as follows:

Casing, Cementing, and Abandonment Procedure
Applicant shall set 8 5/8", 10 3/4" or 11 3/4" surface casing.

(8) Surface Casing String:

(a) ~~Report to set 11 3/4" casing with 150 sacks cement on 8 5/8" casing with 150 sacks at 350' at a depth of 350 feet below the surface. Cement will be circulated back to the surface.~~

shall
(b) Cement will be allowed to set a minimum of 12 hours before drilling the plug or initiating tests.

(2) ~~Well Protection String:~~

~~(a) Waiver of requirement to run well protection string of casing.~~

Mr. Daniel S. Harroun

March 4, 1965

If production is encountered, applicant shall set

(2) Production String:

(a) A production string of 4½" casing ~~may be set on top or through the Seven Rivers formation at an approximate depth of 3225' after the reservoir has been evaluated by logging or testing.~~

(b) The production string ^{shall} will be cemented with sufficient cement to protect ^{all} pay zones and fill the annular space behind the pipe ^{to a minimum} 1000' above the casing point. ~~Estimated amount of cement required is 250 sacks.~~ Cement shall be allowed to set a minimum of 12 hours before drilling the plug or initiating tests.

VI

~~Plugging and Abandonment of Wells~~ *Upon completion of the well, it shall*

(3) ~~Wells~~ will be plugged and abandoned in accordance with the standard statewide rules and regulations of the New Mexico Oil Conservation Commission. Cement plugs of 25 sacks each (100' in length) ~~will~~ ^{shall} be spotted opposite the pay horizon, below the salt section, above the salt section and at the base of the shoe of the ~~4½"~~ surface casing, and 10 sacks ^{shall} will be used at the surface. In addition, 25 sack cement plugs ^{shall} will be spotted opposite any water bearing horizon encountered while drilling. In the event production string is run and the casing is later cut and pulled, 25 sack cement plugs will be spotted at the point of cut-off.

(4) Since my conference with you last week, we have surveyed the location and find that there is a pipeline under our proposed drill site; and consequently, it has been necessary to move the location 100' north. You will note that the footage describing the exact location of our well has been corrected accordingly.

Applicant shall notify the Hobbs District Office of the date and hour casing is to be run and cemented.

Mr. Daniel S. Harroun

3.

March 4, 1965

I am enclosing a copy of our notice of intention to drill for your approval which has been filed with the New Mexico Oil Conservation Commission at Hobbs, New Mexico. In accordance with regulation R-111-A our request for drilling the above well subject to the special cementing and casing program has been placed on the docket for hearing before the Oil Conservation Commission on March 24, 1965. Our cementing and casing program has been discussed with the engineers of the New Mexico Oil Conservation Commission who have indicated their approval subject to a formal hearing required by regulation. Halliburton Cement Company has reviewed this cementing program and advised us that the procedure will satisfy all safety requirements. The casing, cementing, and plug and abandon procedure which we propose will conform to statewide rules and regulations of the New Mexico Oil Conservation Commission.

In order to expedite this matter, it is respectfully requested that you approve the above exceptions and waiver of Rule R-111-A by returning a signed copy of this letter.

Yours very truly,

FORELINE EXPLORATION CO.

Charles B. Read, Vice-President

CBR:jw

APPROVED this _____ day of _____, 1965.
HARROUN and HAY WORTH and DANIEL E. HARROUN, individually

By: _____

Daniel E. Harroun

From the desk of

PHONE 622-3770

CHARLES B. READ

OIL PROPERTIES BOX 1822 SECURITY NATIONAL BANK BLDG.

ROSWELL, N. M.,

3/31 1965

Dan:

In accordance with
our telephone conversation,
enclosed is copy of letter
to the Polosh lessee advising
them of our change in plans
which is self explanatory.

Best Regards,

Charlie

Shoreline

Exploration Co. 1211 Fort Worth National Bank Building, Fort Worth, Texas
REPLY TO: P. O. Box 1822, Roswell, New Mexico

March 31, 1965

Mr. Tom Jones
U. S. Borax and Chemical Corp.
P. O. Box 271
Carlsbad, New Mexico

Dear Mr. Jones:

It is possible that it will be necessary to make a minor change in the type of drilling rig and the size of surface casing to be used in the drilling of Shoreline Exploration Co. #2 Snyder located 1090 feet from the south line and 2310 feet from the east line of Section 16, Township 20 South, Range 33 East, Lea County, New Mexico.


In testimony presented at the Oil Conservation Commission hearing in Santa Fe on March 24, 1965, it was proposed that rotary tools would be used down to the top of the salt and then cable tools moved in and drilled to total depth. We have been advised that there is a rotary-air drilling rig available in the immediate area which might be available for our use. The drilling procedure is the same as rotary tools except instead of using mud to circulate the samples, they will be circulated back to the surface by compressed air. Actually this works to the benefit of the potash zone inasmuch as no fluids are used in the hole for circulating samples.

It is further possible that it might be necessary to alter the hole size to a 13-3/8" hole and 10-3/4" surface casing set at a depth of 350' with 150 sacks of cement circulated back to the surface. This type of casing program would offer the same protection and safety factors.

The above changes in drilling equipment, size of hole, and surface casing are minor alterations of our original proposal and will offer the same safety factors and protection to the potash lessee. These proposed changes will conform to statewide rules and regulations of the New Mexico Oil Conservation Commission. If you have any objections to the above change in plans, will you please advise the Oil Conservation Commission at Santa Fe, New Mexico, by telegram on April 2, 1965.

Yours very truly,

SHORELINE EXPLORATION CO.


Charles B. Read, Vice-President

cc: Mr. Dan Nutter, OCC, Santa Fe

CLASS OF SERVICE

This is a fast message unless its deferred character is indicated by the proper symbol.

WESTERN UNION TELEGRAM

1201 (4-60)

SYMBOLS

DL = Day Letter

NL = Night Letter

LT = International Letter Telegram

W. P. MARSHALL, President

The filing time shown in the date line on domestic telegrams is LOCAL TIME at point of origin. Time of receipt is LOCAL TIME at point of destination

(46)•

LA075 SSA172

L CSA029 PD=CARLSBAD NMEX 23 141P MST=

CHARLES B READ, VICE PRESIDENT SHORELINE EXPLORATION CO=
SECURITY BANK BLDG ROSWELL NMEX=

REFERENCE SHORELINE EXPLORATION COMPANIES SNIDER NUMBER
2, HARROUN AND HAWORTH CONSENT TO DRILLING OF WELL PER
SPECIFICATIONS SET FORTH IN YOUR LETTER TO DANIEL S
HARROUN DATED MARCH 4, 1965. HARROUN AND HAWORTH WILL
BE REPRESENTED AT HEARING BEFORE OIL CONSERVATION
COMMISSION MARCH 24, 1965 SANTA FE NEW MEXICO=

D S HARROUN==

EXHIBIT "F"

2 4 1965 24 1965=

BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION

EXHIBIT NO.

CASE NO. 322

THE COMPANY WILL APPRECIATE SUGGESTIONS FROM ITS PATRONS CONCERNING ITS SERVICE

Shoreline
Exploration Co.

1211 Fort Worth National Bank Building, Fort Worth, Texas
REPLY TO: P. O. Box 1822, Roswell, New Mexico

March 4, 1965

Mr. Daniel S. Harroun
601 Riverside Drive
Carlsbad, New Mexico

Dear Mr. Harroun:

This letter will confirm my conversation with you regarding the drilling of Shoreline Exploration Co. #2 Snyder located 1690' from the south line and 2310' from the east line of Section 16, Township 20 South, Range 33 East, Lea County, New Mexico. The estimated total depth of this test will be 3250'. The records reflect that United States Borax & Chemical Corporation owns a potash lease under all of Section 16 and Harroun and Hayworth have leases within a mile of the proposed test. There are no other potash leases within a one mile radius of the test well. In accordance with our discussion, we submit for your approval waiver and exceptions to the casing and cementing program and plug and abandon procedure of New Mexico Oil Conservation Commission Order R-111-A as follows:

IV.

- (2) Surface Casing String:
 - (a) Propose to set 11-3/4" casing with 150 sacks cement or 8-5/8" casing with 150 sacks at 350' below the surface. Cement will be circulated back to the surface.
 - (b) Cement will be allowed to set a minimum of 12 hours before drilling the plug or initiating tests.
- (3) Salt Protection String:
 - (a) Waiver of requirement to run salt protection string of casing.

Mr. Daniel S. Harroun

2.

March 4, 1965

(5) Production String:

(a) A production string of $4\frac{1}{2}$ " casing may be set on top or through the Seven Rivers formation at an approximate depth of 3225' after the reservoir has been evaluated by logging or testing.

(i) The production string will be cemented with sufficient cement to protect any pay zone and fill the annular space behind the pipe 1000' above the casing point. Estimated amount of cement required is 250 sacks. Cement shall be allowed to set a minimum of 12 hours before drilling the plug or initiating tests.

VI.

Plugging and Abandonment of Wells.

(1) Well will be plugged and abandoned in accordance with the standard statewide rules and regulations of the New Mexico Oil Conservation Commission. Cement plugs of 25 sacks each (100' in length) will be spotted opposite the pay horizon, below the salt section, above the salt section and at the base of the shoe of the 3-5/8" surface casing, and 10 sacks will be used at the surface. In addition, 25 sack cement plugs will be spotted opposite any water bearing horizon encountered while drilling. In the event production string is run and the casing is later cut and pulled, 25 sack cement plugs will be spotted at the point of cut-off.

Since my conference with you last week, we have surveyed the location and find that there is a pipeline under our proposed drill site; and consequently, it has been necessary to move the location 100' north. You will note that the footage describing the exact location of our well has been corrected accordingly.

Mr. Daniel S. Harroun

3.

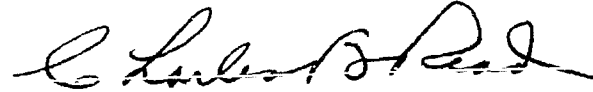
March 4, 1965

I am enclosing a copy of our notice of intention to drill for your approval which has been filed with the New Mexico Oil Conservation Commission at Hobbs, New Mexico. In accordance with regulation R-111-A our request for drilling the above well subject to the special cementing and casing program has been placed on the docket for hearing before the Oil Conservation Commission on March 24, 1965. Our cementing and casing program has been discussed with the engineers of the New Mexico Oil Conservation Commission who have indicated their approval subject to a formal hearing required by regulation. Halliburton Cement Company has reviewed this cementing program and advised us that the procedure will satisfy all safety requirements. The casing, cementing, and plug and abandon procedure which we propose will conform to statewide rules and regulations of the New Mexico Oil Conservation Commission.

In order to expedite this matter, it is respectfully requested that you approve the above exceptions and waiver of Rule R-111-A by returning a signed copy of this letter.

Yours very truly,

SHORELINE EXPLORATION CO.



Charles B. Read, Vice-President

CBR:jw

APPROVED this 27 day of March, 1965.

HARROUN and HAYWORTH and DANIEL S. HARROUN, Individually

By: Daniel S. Harroun
Daniel S. Harroun

3531

Shoreline
Exploration Co.

1211 Fort Worth National Bank Building, Fort Worth, Texas
REPLY TO: P. O. Box 1822, Roswell, New Mexico

March 2, 1965

Mr. Daniel S. Nutter
New Mexico Oil Conservation Commission
P. O. Box 2088
Santa Fe, New Mexico

Dear Dan:

In accordance with our telephone conversation today, our letter to you dated March 1, 1965, contains an incorrect description for the proposed location of our Snyder #2. It is respectfully requested that the application be corrected as follows and placed on the docket for hearing before the Oil Conservation Commission on March 24, 1965:

Application of Shoreline Exploration Co. for an unorthodox location and special cementing and casing program. Applicant in the above-styled cause seeks authority to drill and complete its Snyder #2 at an unorthodox location 1090 feet from the South line and 2310 feet from the East line of Section 16, Township 20 South, Range 33 East, Lea County, New Mexico. Casing, cementing and plug and abandon procedure to conform to statewide rules and regulations of New Mexico Oil Conservation Commission.

Mr. James T. Jennings, Attorney, will serve as legal counsel in behalf of our company. If you have any further questions regarding this application for hearing, do not hesitate to call by collect telephone to either myself at 622-3770 or James T. Jennings, 622-8432, Roswell, New Mexico.

Yours very truly,

SHORELINE EXPLORATION CO.

Charles B. Read
Charles B. Read, Vice-President

CBR:jw

DOCKET MAILED

Date 3-7-65

Shoreline
Exploration Co.

1211 Fort Worth National Bank Building, Fort Worth, Texas

Reply to: P. O. Box 1822, Roswell, New Mexico

March 1, 1965

Mr. Daniel S. Nutter
New Mexico Oil Conservation Commission
P. O. Box 2088
Santa Fe, New Mexico

Dear Dan:

Confirming our telephone conversation, it is respectfully requested that the following application be placed on the docket for a hearing before the Oil Conservation Commission on March 24, 1965:

Application of Shoreline Exploration Co. for an unorthodox location and special cementing and casing program. Applicant in the above-styled cause seeks authority to drill and complete its Snyder #2 at an unorthodox location ~~2440~~ ¹⁰⁹⁰ feet from the South line and 2310 feet from the East line of Section 16, Township 20 South, Range 33 East, Lea County, New Mexico. Casing, cementing and plug and abandon procedure to conform to statewide rules and regulations of New Mexico Oil Conservation Commission.

Mr. James T. Jennings, Attorney, will serve as legal counsel in behalf of our company. If you have any further questions regarding this application for hearing, do not hesitate to call by collect telephone to either myself at 622-3770 or James T. Jennings, 622-8432, Roswell, New Mexico.

Yours very truly,

SHORELINE EXPLORATION CO.

Charles B. Read

Charles B. Read, Vice-President

CBR:jw

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LAND OFFICE	
OPERATOR	

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-101
Revised 1-4-65

5A. Indicate Type of Lease
STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>
5. State Oil & Gas Lease No.
E-4207

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work		7. Unit Agreement Name	
b. Type of Well		None	
DRILL <input checked="" type="checkbox"/>	DEEPEN <input type="checkbox"/>	8. Firm or Lease Name	
OIL WELL <input checked="" type="checkbox"/>	GAS WELL <input type="checkbox"/>	Snyder	
2. Name of Operator		9. Well No.	
Shoreline Exploration Co.		2	
3. Address of Operator		10. Field and Prop. or Lease	
P. O. Box 1822, Roswell, New Mexico		West Texas	
4. Location of Well		12. County	
UNIT LETTER <u>M</u> LOCATED <u>1090</u> FEET FROM THE <u>South</u> LINE		Lea	
AND <u>2310</u> FEET FROM THE <u>East</u> LINE OF SEC. <u>16</u> TWP. <u>20S</u> RGE. <u>33E</u> NMPM			
19. Proposed Depth		19A. Formation	
3250'		Seven Rivers	
20. Rotary or C.T.		Cable Tool	
21. Elevations (Show whether DF, RT, etc.)		22. Approx. Date Work will start	
21A. Kind & Status Plug. Bond		April 1, 1965	
\$10,000 Statewide		Cactus Drilling Co.	

PROPOSED CASING AND CEMENT PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
13-3/8"	11-3/4"	42#	350'	150	Cir. to Surface
OR					
11"	8-5/8"	24#	350'	150	Cir. to Surface
7-7/8"	4-1/2"	9.5#	3225'	250	2225'

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: IF PROPOSAL IS TO DEEPEN OR PLUG BACK, GIVE DATA ON PRESENT PRODUCTIVE ZONE AND PROPOSED NEW PRODUCTIVE ZONE. GIVE BLOWOUT PREVENTER PROGRAM, IF ANY.

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

Signed Charles B. Read Title Vice-President Date March 4, 1965

(This space for State Use)

APPROVED BY Charles B. Read TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:
Approved this 17 day of March, 1965.

HARROUN and HAYWORTH and DANIEL S. HARROUN, Individually

By: Daniel S. Harroun

Daniel S. Harroun

Top of 1275'

EXHIBIT "B"

SHORELINE EXPLORATION CO. #2
SW $\frac{1}{4}$ SE $\frac{1}{4}$ 16-20S-33E

BEFORE EXAMINER NUTTER	
OIL CONSERVATION COMMISSION	
EXHIBIT NO. <u>12</u>	CASE NO. <u>3221</u>
SNYDER	

Cost of Casing, Cementing, and Plug and Abandon Expense in Accordance with
New Mexico Oil Conservation Commission Order R-111-A.

(a) Surface Casing String <i>(top to top of 1275')</i>	
1275' of 8-5/8", 24# J-55 @ \$3.03/ft.	\$ 3,863.25
460 sacks cement - circulated to surface <i>as reqd</i>	\$ 1,231.00
Rig time to run casing	\$ 500.00
24 hr. W. O. C. rig time	\$ 500.00
Engineering Supervision	\$ 100.00
Centralizers and float equipment	\$ 250.00
	<u>\$ 6,444.25</u>
(b) Salt Protection String <i>reqd to 100' below</i>	
2935' of 7", 23#, J-55 @ \$2.85/ft.	\$ 8,364.75
325 sacks cement - circulated back to surface	\$ 1,643.00
Perforating Casing to cement <i>as reqd</i>	\$ 500.00
Rig time to run 7" casing	\$ 500.00
24 hr. W. O. C. rig time	\$ 500.00
Engineering Supervision	\$ 100.00
Rig time to drill out cement plug	\$ 250.00
Centralizers and float equipment	\$ 250.00
	<u>\$12,107.75</u>
(c) Production String	
600' of 4 1/2", 10.5#, J-55 liner @ \$1.40/ft.	\$ 840.00
Liner hanger	\$ 900.00
Rig time to run 4 1/2" liner	\$ 500.00
60 sacks cement	\$ 480.00
Engineering Supervision	\$ 100.00
24 hr. W. O. C. rig time	\$ 500.00
Centralizers and float equipment	\$ 250.00
Rental on tubing	\$ 750.00
Rig time to drill cement out of liner	\$ 500.00
	<u>\$ 4,820.00</u>
(d) Plug and Abandon	
470 sacks cement	\$ 1,558.00
Rig time to set cement plugs	\$ 250.00
Engineering Supervision	\$ 100.00
	<u>\$ 1,908.00</u>
GRAND TOTAL - Producing Oil Well	\$23,372.00
GRAND TOTAL - Dry Hole	\$20,400.00

*Must be
run
before
production
can
begin*

EXHIBIT "C"

SHORELINE EXPLORATION CO. #2 SNYDER
SW $\frac{1}{4}$ SE $\frac{1}{4}$ 16-20S-33E

Cost of Casing, Cementing, and Plug and Abandon Expense as Proposed by Applicant
in Notice of Intention to Drill in Accordance with the Standard Statewide Rules and
Regulations of the New Mexico Oil Conservation Commission.

(a) Surface Casing String:
350' of 8-5/8", 24#, J-55 @ \$3.03/ft. \$1,060.00
150 sacks cement circulated to surface \$ 492.00
Rig time to run casing \$ 150.00
12 hr. W.O.C. rig time \$ 250.00
Engineering Supervision \$ 50.00
Centralizers and float equipment \$ 150.00
\$2,152.50

(b) Production String:
3225' of 4 1/2", 10.5#, J-55 @ \$1.40/ft. \$4,515.00
250 sacks cement 1000' *between rig* \$ 862.50
Rig time to run 4 1/2" casing \$ 500.00
Engineering Supervision \$ 100.00
12 hr. W.O.C. rig time \$ 250.00
Centralizers and float equipment \$ 250.00
Rig time to drill out cement plug \$ 100.00
\$6,577.50

3225
1000
2225

2152.50
717.50
2870.00

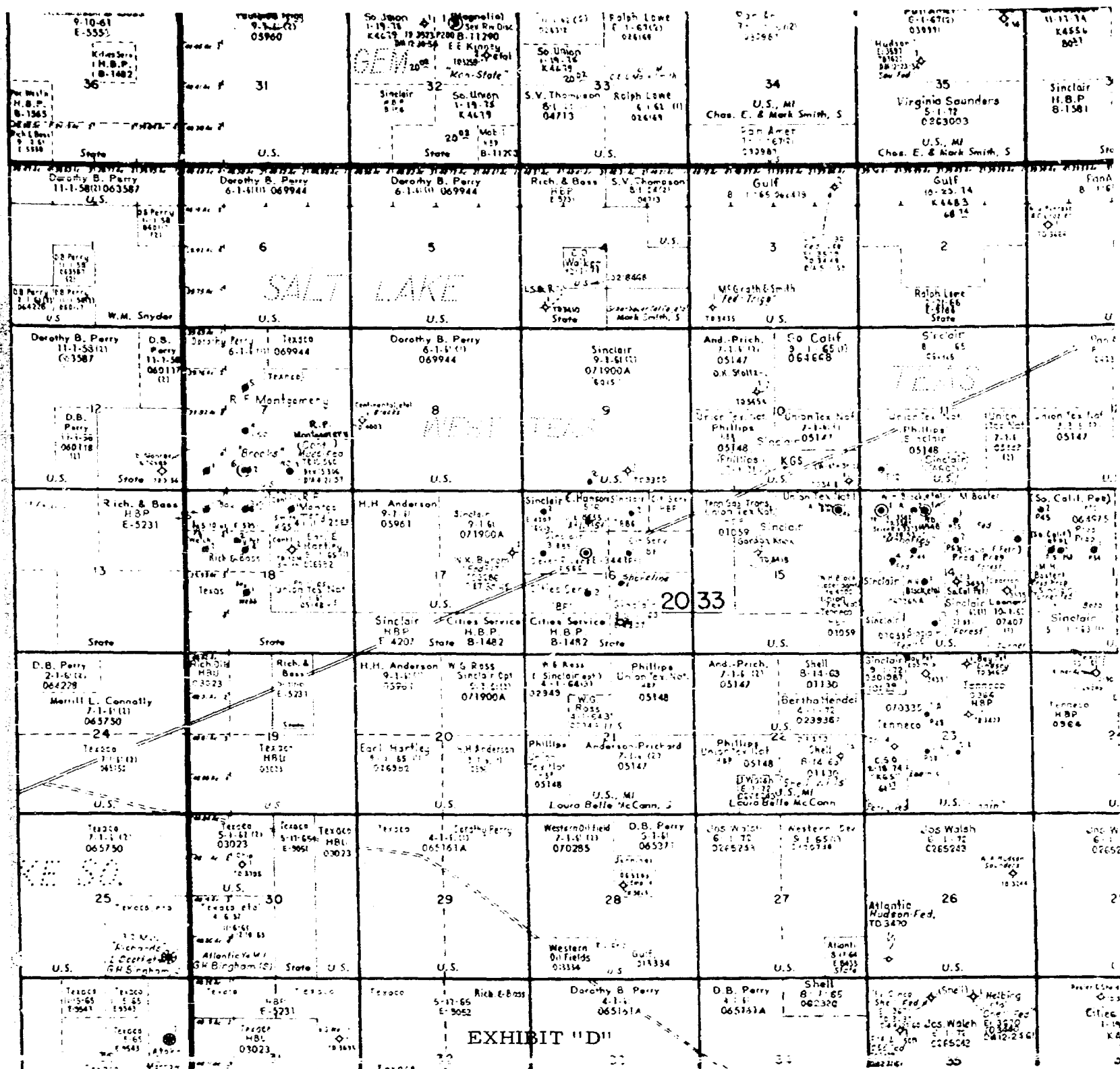
(c) Plug and Abandon Expense:
110 sacks cement *75 sacks* \$ 567.50
Rig time to set cement plugs *be calculated by* \$ 100.00
Engineering Supervision *75 SX plug below* \$ 50.00
\$ 717.50

GRAND TOTAL - Producing Oil Well \$8,730.00

GRAND TOTAL - Dry Hole \$2,870.00

BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
App. EXHIBIT NO. 2
CASE NO. 3221

75 SX at bottom
top of hole
25 SX at bottom
surface plug
10 SX at bottom
between all plug-



Shoreline
Exploration Co.

EXHIBIT "E"

1211 Fort Worth National Bank Building, Fort Worth, Texas

REPLY TO: P. O. Box 1822, Roswell, New Mexico

March 11, 1965

Mr. T. E. Jones
United States Borax and Chemical Corporation
P. O. Box 271
Carlsbad, New Mexico

BEFORE EXAMINER NUTTER

Oil CONSERVATION COMMISSION

EXHIBIT NO. E

CASE NO. 3221

Dear Mr. Jones:

I am in receipt of your letter dated March 10, 1965, wherein you transmitted waiver of casing and cementing program as required by New Mexico Oil Conservation Commission Rule R-111-A in the drilling of our Snyder #2 located in Section 16-20S-33E, Lea County, New Mexico.

Due to the present availability of casing it is possible that it might be necessary for us to use 11-3/4" casing instead of 8-5/8" casing on the surface string which would be set at 350'. It would require the same amount of cement of 150 sacks to circulate the cement back to the surface. Although this is a minor change, I would appreciate you acknowledging approval of the alternate casing program in the event it should become necessary. Would you please return one signed copy of this letter for our files.

You may be assured that we will cooperate with your company in the drilling of the above test well; and if you have any suggestions, do not hesitate to contact me.

I am also enclosing two copies of our application for permit to drill which includes the amended surface casing program and would appreciate you approving same by returning a signed copy of this letter and the application for our files.

Yours very truly,

SHORELINE EXPLORATION CO.



Charles B. Read, Vice-President

CBR:jw
Encl.

Mr. T. E. Jones

2.

March 11, 1965

APPROVED this 15th day of March, 1965.

UNITED STATES BORAX AND CHEMICAL CORPORATION

By: 

T. E. Jones

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FILE	
U.S.G.S.	
LAND OFFICE	
OPERATOR	

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-101
Revised 11-65

1a. Type of Work		1b. Type of Well		2. Name of Operator		3. Address of Operator		4. Location of Well		5. State Oil & Gas Lease No.		6. Unit Agreement Name		7. Farm or Lease Name		8. Well No.		9. Field and Pool, or Wildcat		10. County	
DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/> PLUG BACK <input type="checkbox"/>		OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/>		Shoreline Exploration Co.		P. O. Box 1822, Roswell, New Mexico		UNIT LETTER <u>M</u> LOCATED <u>1090</u> FEET FROM THE <u>South</u> LINE		E-4207		None		Snyder		2		West Teas		Lea	
AND <u>2310</u> FEET FROM THE <u>East</u> LINE OF SEC. <u>16</u> TWP. <u>20S</u> RGE. <u>33E</u> NMPM																					
21. Elevations (Show whether DF, RT, etc.)		21A. Kind & Status Plug. Bond		19. Proposed Depth		19A. Formation		20. Rotary or C.T.		22. Approx. Date Work will start											
		\$10,000 Statewide		3250'		Seven Rivers		Cable Tool		April 1, 1965											
				21B. Drilling Contractor																	
				Cactus Drilling Co.																	

PROPOSED CASING AND CEMENT PROGRAM					
SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
13-3/8"	11-3/4"	42#	350'	150	Cir. to Surface
OR	8-5/8"	24#	350'	150	Cir. to Surface
11"	4-1/2"	9.5#	3225'	250	2225'
7-7/8"					

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM IF PROPOSAL IS TO DEEPEN OR PLUG BACK, GIVE DATA ON PRESENT PRODUCTIVE ZONE AND PROPOSED NEW PRODUCTIVE ZONE. GIVE BLOWOUT PREVENTER PROGRAM, IF ANY.

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

Signed Charles B. Head Title Vice-President Date March 4, 1965

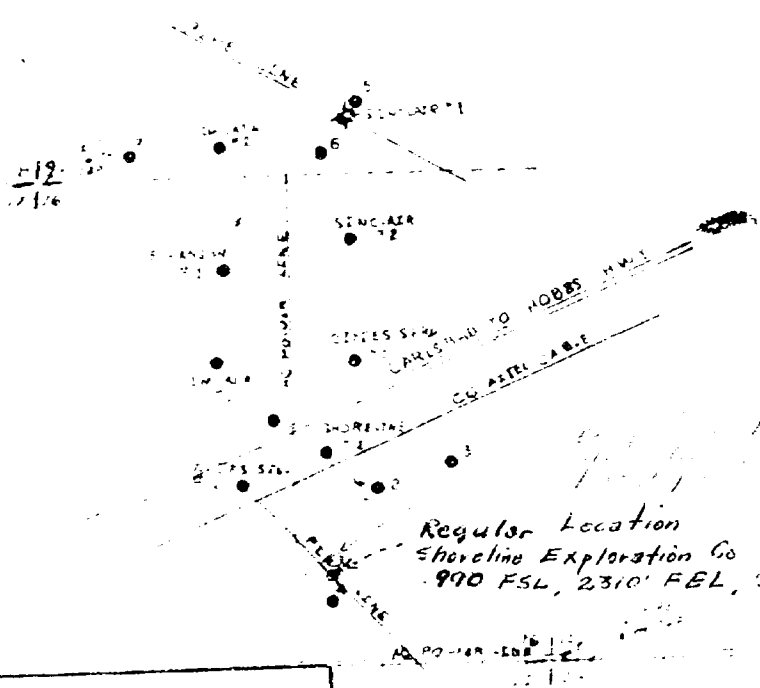
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APPROVED BY Ken E. Jones TITLE Geologist DATE 3/15/65

CONDITIONS OF APPROVAL, IF ANY:

U.S. Bureau of Chemical
Agriculture
under all of Jan 16
+ 160 in 17 (B. & C.)
Harrison S. Hargreave.
from 1800 in north of
this.

15 22 21 20 ^{1125 AC16} 17 not loose.



Regular Location
Shoreline Exploration Co. #2 Snyder
990 FSL, 2310' FEL, Section 16, Twp 20S, Rge 33E

BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
Appl EXHIBIT NO. *H*
CASE NO. *3221*

STATE California COUNTY Los Angeles
Scale 1" = 2000'

EXHIBIT "H"



March 10, 1965

Mr. Charles B. Read
Shoreline Exploration Company
P.O. Box 1822
Roswell, New Mexico

Dear Sir:

I am returning a signed copy of your letter approving the waiver of the OCC Rule R-111-A in the drilling and casing program of the Snyder No. 2 located 1090 feet from the south line and 2310 feet from the east line of Section 16, T20S, R30E. NMPM, Lea County, New Mexico.

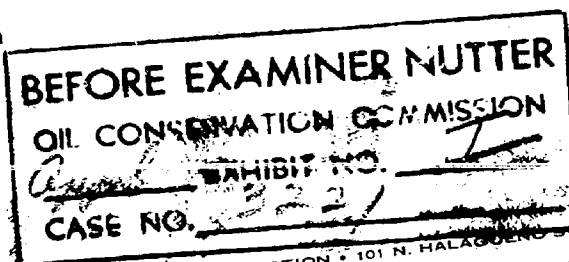
We feel that this specified well warrants special consideration due to location and the type of drilling proposed, but this is not to be construed as setting any kind of precedent for any future drilling.

Yours very truly,

U. S. BORAX & CHEMICAL CORPORATION

T. E. Jones
T. E. Jones, Geologist

TEJ/sh



UNITED STATES BORAX & CHEMICAL CORPORATION • 101 N. HALAGUENO ST. • CARLSBAD, NEW MEXICO • TUXEDO 5-3151
MAIL ADDRESS: P. O. BOX 271, CARLSBAD, NEW MEXICO

Shoreline
Exploration Co.

1211 Fort Worth National Bank Building, Fort Worth, Texas
REPLY TO: P. O. Box 1822, Roswell, New Mexico

March 4, 1965

Mr. Tom Jones
United States Borax & Chemical Corporation
P. O. Box 271
Carlsbad, New Mexico

Dear Mr. Jones:

This letter will confirm my conversation with you regarding the drilling of Shoreline Exploration Co. #2 Snyder located 1090' from the south line and 2310' from the east line of Section 16, Township 20 South, Range 33 East, Lea County, New Mexico. The estimated total depth of this test will be 3250'. The records reflect that United States Borax & Chemical Corporation owns a potash lease under all of Section 16 and Harroun and Hayworth have leases within a mile of the proposed test. There are no other potash leases within a one mile radius of the test well. In accordance with our discussion, we submit for your approval waiver and exceptions to the casing and cementing program and plug and abandon procedure of New Mexico Oil Conservation Commission Order R-111-A as follows:

IV.

- (2) Surface Casing String:
 - (a) Propose to set 8-5/8" new or used oil field casing in good condition at 350' below the surface, cemented with sufficient cement to circulate back to the surface, estimated to require 150 sacks.
 - (b) Cement shall be allowed to set a minimum of 12 hours before drilling the plug or initiating tests.
- (3) Salt Protection String:
 - (a) Waiver of requirement to run salt protection string of casing.

2.

Mr. Tom Jones
United States Borax & Chemical Corporation

March 4, 1965

(5) Production String:

(a) A production string of $4\frac{1}{2}$ " casing may be set on top or through the Seven Rivers formation at an approximate depth of 3225' after the reservoir has been evaluated by logging or testing.

(i) The production string will be cemented with sufficient cement to protect any pay zone and fill the annular space behind the pipe 1000' above the casing point. Estimated amount of cement required is 250 sacks. Cement shall be allowed to set a minimum of 12 hours before drilling the plug or initiating tests.

VI.

Plugging and Abandonment of Wells.

- (1) Well will be plugged and abandoned in accordance with the standard statewide rules and regulations of the New Mexico Oil Conservation Commission. Cement plugs of 25 sacks each (100' in length) will be spotted opposite the pay horizon, below the salt section, above the salt section and at the base of the shoe of the 8-5/8" surface casing, and 10 sacks will be used at the surface. In addition, 25 sack cement plugs will be spotted opposite any water bearing horizon encountered while drilling. In the event production string is run and the casing is later cut and pulled, 25 sack cement plugs will be spotted at the point of cut-off.

Since my conference with you last week, we have surveyed the location and find that there is a pipeline under our proposed drill site; and consequently, it has been necessary to move the location 100' north. You will note that the footage describing the exact location of our well has been corrected accordingly.

3.

March 4, 1965

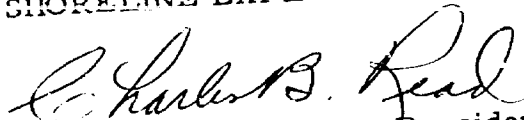
Mr. Tom Jones
United States Borax & Chemical Corporation

I am enclosing a copy of our notice of intention to drill for your approval which has been filed with the New Mexico Oil Conservation Commission at Hobbs, New Mexico. In accordance with regulation R-111-A our request for drilling the above well subject to the special cementing and casing program has been placed on the docket for hearing before the Oil Conservation Commission on March 24, 1965. Our cementing and casing program has been discussed with the engineers of the New Mexico Oil Conservation Commission who have indicated their approval subject to a formal hearing required by regulation. Halliburton Cement Company has reviewed this cementing program and advised us that the procedure will satisfy all safety requirements. The casing, cementing, and plug and abandon procedure which we propose will conform to statewide rules and regulations of the New Mexico Oil Conservation Commission.

In order to expedite this matter, it is respectfully requested that your company approve the above exceptions and waiver of Rule R-111-A by returning a signed copy of this letter.

Yours very truly,

SHORELINE EXPLORATION CO.


Charles B. Read, Vice-President

CBR:jw

APPROVED this 10 day of March, 1965.

UNITED STATES BORAX & CHEMICAL CORPORATION

By:  Geologist

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OPERATOR

NEW MEXICO OIL CONSERVATION COMMISSION

Form O-191
Revised 12-64

5A. Indicate Type of Lease
STATE ☒ FEDERAL ☐

5. State Oil & Gas Lease No.
E-4207

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work
DRILL ☒ DEEPEN ☐ PLUG BACK ☐

b. Type of Well
OIL WELL ☒ GAS WELL ☐ OTHER ☐ SINGLE ZONE ☒ MULTIPLE ZONE ☐

2. Name of Operator
Shoreline Exploration Co.

3. Address of Operator
P. O. Box 1822, Roswell, New Mexico

4. Location of Well
UNIT LETTER **M** LOCATED **1090** FEET FROM THE **South** LINE
AND **2310** FEET FROM THE **East** LINE OF SEC. **16** TWP. **20S** RGE. **33E** NMPM

7. Unit Agreement Name
None

8. Form or Lease Name
Snyder

9. Well No.
2

10. Field and Pool, or Wildcat
West Teas

12. County
Lea

19. Proposed Depth
3250'

19A. Formation
Seven Rivers

20. Rotary or C.T.
Cable Tool

21. Elevations (Show whether DE, RT, etc.)
\$10,000 Statewide

21A. Kind & Status Prop. Bond
\$10,000 Statewide

21B. Drilling Contractor
Cactus Drilling Co.

22. Approx. Date Work will start
April 1, 1965

PROPOSED CASING AND CEMENT PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
11"	8-5/8"	24#	350'	150	Cir. to Surface
7-7/8"	4-1/2"	9.5#	3225'	250	2225'

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: IF PROPOSAL IS TO DEEPEN OR PLUG BACK, GIVE DATA ON PRESENT PRODUCTIVE ZONE AND PROPOSED NEW PRODUCTIVE ZONE. GIVE BLOWOUT PREVENTER PROGRAM, IF ANY.

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

Signed Charles B. Read Title Vice-President Date March 4, 1965

(This space for State Use)

APPROVED BY [Signature] DATE _____

REMARKS ON APPROVAL, IF ANY:

NEW MEXICO OIL CONSERVATION COMMISSION						FORM C-128 Revised 3/1/57
WELL LOCATION AND ACREAGE DEDICATION PLAT						
SEE INSTRUCTIONS FOR COMPLETING THIS FORM ON THE REVERSE SIDE						
SECTION A					Well No.	
Operator SHORELINE EXPLORATION CO.				Lease SNYDER	2	
Unit Letter O	Section 16	Township 20 SOUTH	Range 33 EAST	County LEA		
Actual Well Location of Well: 1090 feet from the SOUTH line and			2310 feet from the EAST line	Dedicated Acreage: 40 Acres		
Ground Level Elev. unknown	Producing Formation Seven Rivers		Pool West Teas	<i>gate - Ave. River</i>		
<p>1. Is the Operator the only owner in the dedicated acreage outlined on the plat below? YES _____ NO _____. ("Owner" means the person who has the right to drill into and to produce from any pool and to appropriate the production either for himself or for himself and another. (65-3-29 (e) NMSA 1935 Comp.)</p> <p>2. If the answer to question one is "no," have the interests of all the owners been consolidated by communication agreement or otherwise? YES _____ NO _____. If answer is "yes," Type of Consolidation _____</p> <p>3. If the answer to question two is "no," list all the owners and their respective interests below:</p>						
Owner			Land Description			
SECTION B						
<div style="border: 1px solid black; padding: 5px; display: inline-block;"> BEFORE EXAMINER NUTTER OIL CONSERVATION COMMISSION EXHIBIT NO. <u>9</u> CASE NO. <u>3227</u> </div>						
<div style="border: 1px solid black; padding: 5px; display: inline-block;"> CERTIFICATION I hereby certify that the information in SECTION A above is true and complete to the best of my knowledge and belief. Name By <i>Charles B. Reed</i> Position Vice President Company _____ Date 3/24/65 </div>						
<div style="border: 1px solid black; padding: 5px; display: inline-block;"> I hereby certify that the well location shown on the plat in SECTION B was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief. Date Surveyed _____ Registered Professional Engineer and/or Land Surveyor, JOHN W. WEST <i>John W. West</i> Certificate No. N.M. P.E. & L.S. NO. 676 </div>						

EXHIBIT "G"