Coastal Oil & Gas Corporation
a subsidiary of The Coastal Corporation

Dinero Plaza
1004 North Big Spring St.
P. O. Box 235
Midland, Texas 79702-0235

915/682-7925

January 7, 1985

State of New Mexico
Energy & Minerals Department
P. O. Box 2088
Santa Fe, New Mexico 88210

Gentlemen:

Please find enclosed a copy of Form C-108, Application for Authorization to Inject, regarding the proposed conversion of the Coastal Oil & Gas Corporation operated Flying "M" (SA) Unit Tract 10 Well #2. This well is located in Section 16, T-9-S, R-33-E and is part of the Flying "M" (SA) Unit Pressure Maintenance Project.

All wells within a one-half mile radius of the proposed conversion are within the unit boundaries and thus, are operated by Coastal Oil & Gas Corporation. The surface is owned by the State, but is leased to B. M. Medlin & Sons. A copy of this application will be sent to them via registered mail.

Coastal Oil & Gas Corporation requests administrative approval of this application per requirements set forth in Order No. R-3229 which provided for expansion of the pilot pressure maintenance project in the Flying "M" (SA) Unit.

If additional information is needed, please advise.

Sincerely,

Bobby L Smith

Bobby L. Smith
Petroleum Engineer

BLS:eh
Attachment

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION
POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501

FORM C-108
Revised 7-1-81

APPLICATION FOR AUTHORIZATION TO INJECT

I. Purpose: ☐ Secondary Recovery ☒ Pressure Maintenance ☐ Disposal ☐ Storage
Application qualifies for administrative approval? ☐ yes ☐ no

II. Operator: Coastal Oil & Gas Corporation

Address: P. O. Box 235, Midland, Texas 79702

Contact party: Bobby L. Smith Phone: 915 - 682-7925

III. Well data: Complete the data required on the reverse side of this form for each well proposed for injection. Additional sheets may be attached if necessary.

IV. Is this an expansion of an existing project? ☒ yes ☐ no
If yes, give the Division order number authorizing the project _____.

V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.

* VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.

VII. Attach data on the proposed operation, including:

1. Proposed average and maximum daily rate and volume of fluids to be injected;
2. Whether the system is open or closed;
3. Proposed average and maximum injection pressure;
4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and
5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).

*VIII. Attach appropriate geological data on the injection zone including appropriate lithologic detail, geological name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such source known to be immediately underlying the injection interval.

IX. Describe the proposed stimulation program, if any.

* X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division they need not be resubmitted.)

* XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.

XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground source of drinking water.

XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.

XIV. Certification

I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

Name: Bobby L. Smith Title Petroleum Engineer

Signature: Bobby L Smith Date: January 3, 1985

* If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be duplicated and resubmitted. Please show the date and circumstance of the earlier submittal. _____

DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate Division district office.

III. WELL DATA

A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:

(1) Lease name; Well No.; location by Section, Township, and Range; and footage location within the section.

(2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.

(3) A description of the tubing to be used including its size, lining material, and setting depth.

(4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.

(1) The name of the injection formation and, if applicable, the field or pool name.

(2) The injection interval and whether it is perforated or open-hole.

(3) State if the well was drilled for injection or, if not, the original purpose of the well.

(4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.

(5) Give the depth to and name of the next higher and next lower oil or gas zone in the area of the well, if any.

XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

(1) The name, address, phone number, and contact party for the applicant;

(2) the intended purpose of the injection well; with the exact location of single wells or the section, township, and range location of multiple wells:

(3) the formation name and depth with expected maximum injection rates and pressures; and

(4) a notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, P. O. Box 2088, Santa Fe, New Mexico 87501 within 15 days.

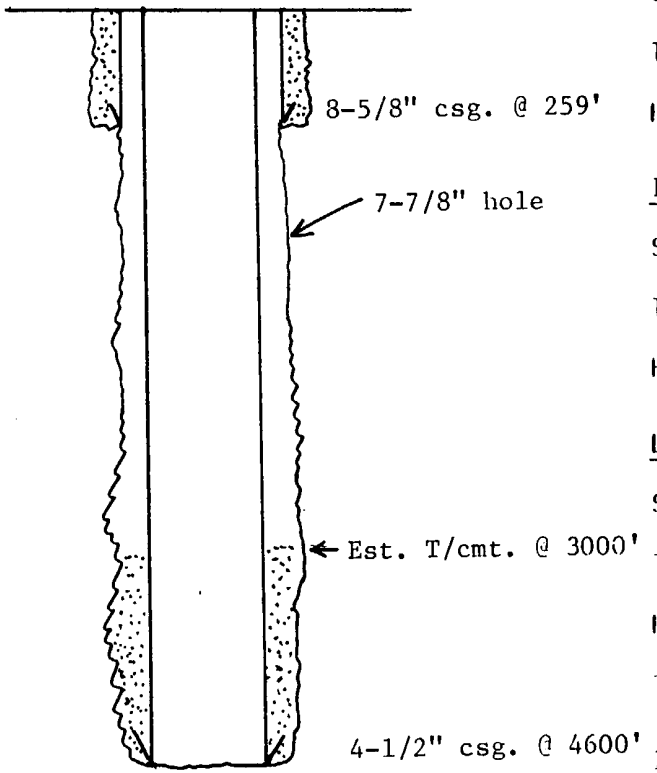
NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

INJECTION WELL DATA SHEET SIDE 1

Coastal Oil & Gas Corporation	Flying "M" (SA) Unit			
OPERATOR	LEASE			
Tract 10 #2	1977' FSL & 665' FWL	16	9-S	33-E
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGE

Schematic



Tabular Data

Surface Casing

Size 8-5/8 " Cemented with 200 sx.

TOC Surface feet determined by Visual

Hole size 12-1/4" to 259'

Intermediate Casing

Size _____ " Cemented with _____ sx.

TOC _____ feet determined by _____

Hole size _____

Long string

Size 4-1/2 " Cemented with 300 sx.

TOC 3000 feet determined by Calculation

Hole size 7-7/8

Total depth 4600'

Injection interval

4454 feet to 4490 feet

(perforated or open-hole, indicate which)

Tubing size 2-3/8" 4.7#/ft. lined with Salta PVC (material) set in a Baker AD-1 (brand and model) packer at 4360' feet

(or describe any other casing-tubing seal).

Other Data

1. Name of the injection formation San Andres

2. Name of Field or Pool (if applicable) Flying "M" (SA)

3. Is this a new well drilled for injection? /_/ Yes /X/ No

   If no, for what purpose was the well originally drilled? Oil Production

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used) No

5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area. All wells within the unit are San Andres producers or injectors.

VII. Proposed Operation.

1. We anticipate the average injection rate and pressure to be 600 BWPD at 1820 psi. Anticipated maximum rate and pressure would be 850 BWPD at 2100 psi.
2. This is a closed system.
3. The fluid to be injected is predominantly water produced in the unit. If additional injection volume is needed, fresh water is utilized from a well approximately 5 miles south of the Flying "M" (SA) Unit. This system has been in use for several years.

VIII. The recommended injection zone in the subject well occurs in the San Andres dolomite formation from 4434' to 4550'. This zone is approximately 250' below the top of the San Andres formation which was encountered at 4198'.

The lithologic description of the injection zone in the Flying "M" Field consist of a dense to porous dolomite with occassional vertical fracturing. The porosity is vugular to intercrystaline. The interval from 4454' to 4500' has been the main producing interval in the Flying "M" Field since it was discovered. Geologically, it is known as the Slaughter producing zone of the San Andres.

The geologic name and depth to underground source of drinking water is the Ogallala formation which occurs from 0'-400 ' in this area.

IX. A small volume matrix acid stimulation will be performed on the well. This stimulation will consist of 2000-3000 gallons of 15% HCl.

X. This well was drilled in 1964 (prior to unitization) as the Southern Minerals-State #2-16, operated by Coastal States Gas Producing Company. I assume logs were sent to the State at that time.

XI. There are no fresh water wells within one mile of this proposed injection well.

XIII. My interpretation of Division Order No. R-3229 pertaining to the Flying "M" (SA) Pressure Maintenance Project is that the proof of publication for administrative approval is not required for a conversion within the unit. If this is not the case, please advise.

All wells within one-half mile of the proposed conversion are within the Flying "M" Unit, operated by Coastal Oil & Gas Corporation.

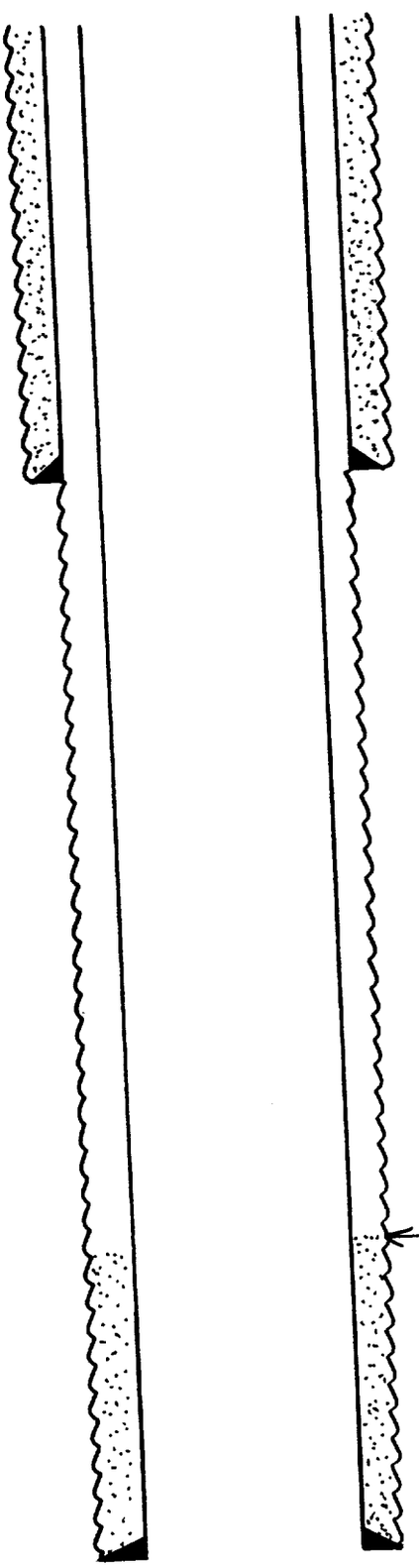
Date January 3, 1985

Lease Flying "M" (SA) Unit Tract 10 Well No. 2 Operator Coastal Oil & Gas Corp.

Location 665 ft. from West Line & 1977 ft. from South Line, Sec. 16, ~~Blk.~~

~~Survey~~ T-9-S, R-33-E County Lea State New Mexico

Elevation 4384' GR Remarks Spud Date 6-1-64



8-5/8" Csg. Set @ 259' in 12-1/4" hole.

Cmt. W/ 200 sacks (circ.)

Est. top of cement at 3000' (calc.)

4-1/2" Csg. Set @ 4600' in 7-7/8" hole.

Cmt. w/ 300 sacks.

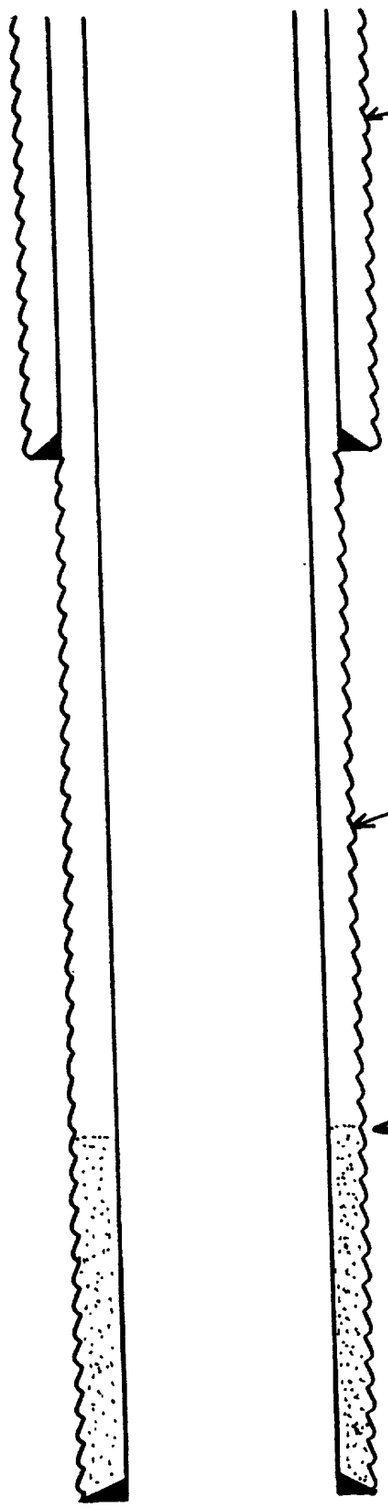
Date January 3, 1985

Lease Flying "M" (SA) Unit Tract 4 Well No. 1 Operator Coastal Oil & Gas Corp.

Location 660 ft.from East Line & 660 ft.from South Line, Sec. 17, Blk.

~~Survey~~ T-9-S, R-33-E County Lea State New Mexico

Elevation 4377' GR Remarks



Date January 3, 1985

Lease Flying "M" (SA) Unit Tract 4 Well No. 2 Operator Coastal Oil & Gas Corp.

Location 1980 ft. from South Line & 1980 ft. from East Line, Sec. 17, ~~Blk.~~

~~Survey~~ T-9-S, R-33-E County Lea State New Mexico

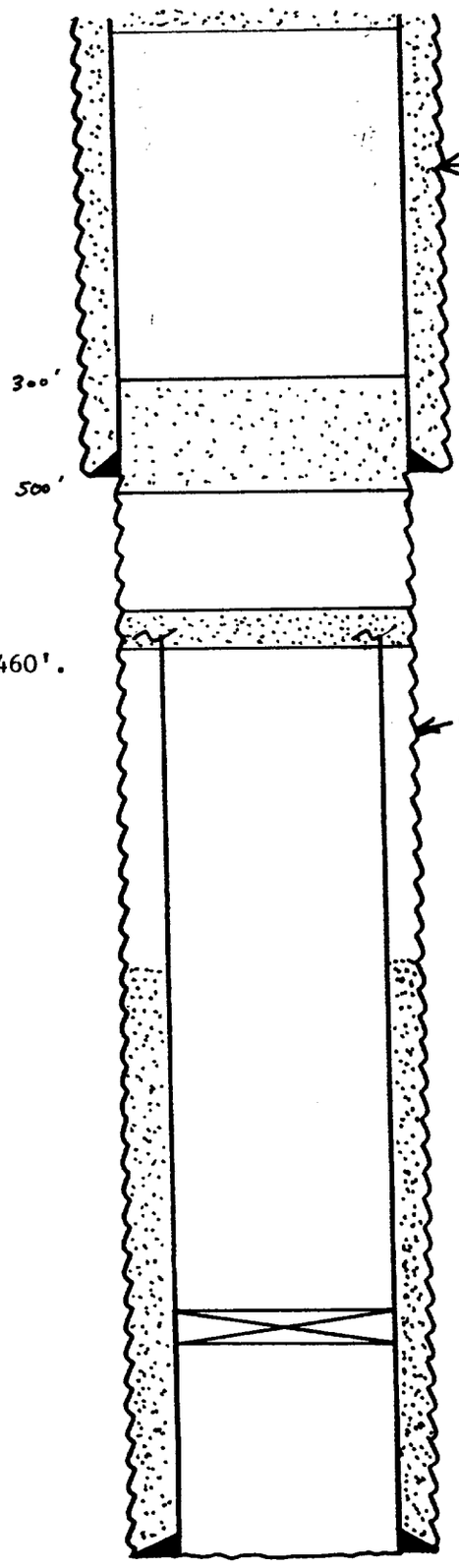
Elevation 4385' GR Remarks Well P&A on 4-10-74.

Set 10 sack plug at surface.

Set 50 sack plug at 300 '.

Cut 4-1/2" csg. at 1460' and pulled. Set 45 sack plug at 1460'.

CIBP at 4350' - 3 sacks on top



9-5/8" hole

7-5/8" Csg. Set @ 431'

Cmt. W/ 250 sacks (circ.)

6-3/4" hole

Est. top of cement 2640' (calc.)

4-1/2" Csg. Set @ 4550'

Cmt. w/ 200 sacks "C"

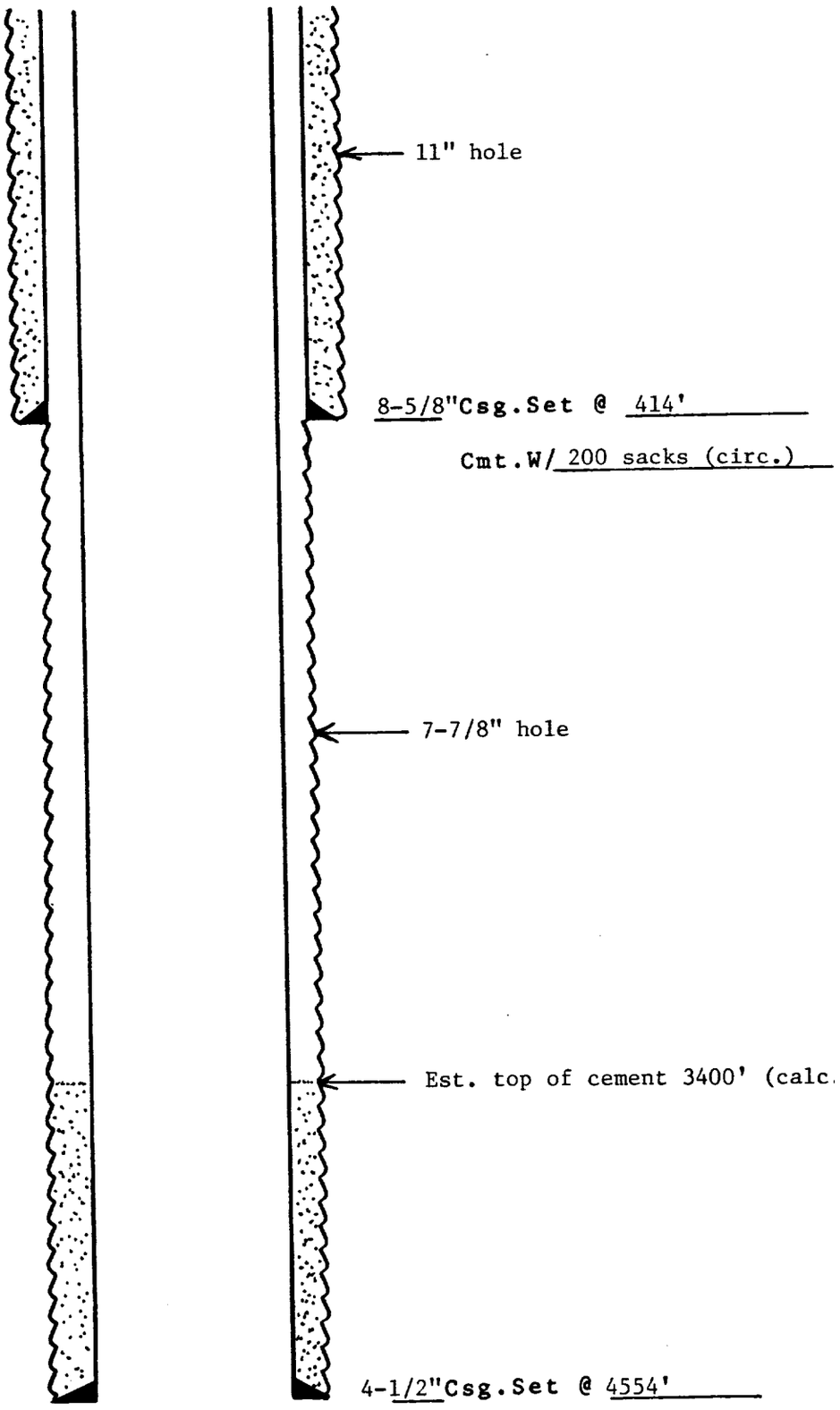
Date January 3, 1984

Lease Flying "M" (SA) Unit Tract 4 Well No. 3 Operator Coastal Oil & Gas Corp.

Location 2116 ft.from North Line & 796 ft.from East Line, Sec. 17, Blk.

Survey T-9-S, R-33-E County Lea State New Mesico

Elevation 4376' GR Remarks



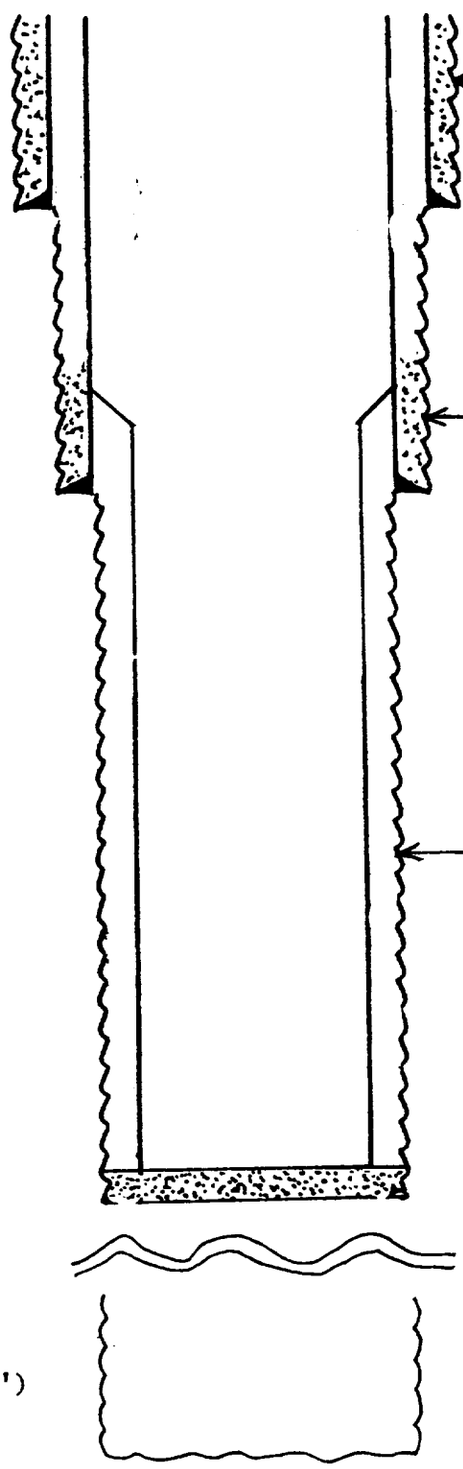
Date January 3, 1984

Lease Flying "M" (SA) Unit Tract 4 Well No. 4 Operator Coastal Oil & Gas Corp.

Location 1980 ft. from South Line & 660 ft from East Line, Sec, 17, Blk

Survey T-9-S, R-33-E County Lea State New Mexico

Elevation 4380' GR Remarks Original TD 9285' - P&A 7-10-65. Re-entered by Coastal Oil & Gas Corp. in March, 1967.



15" hole

11-3/4" Csg.Set @ 411'

Cmt.W/ 350 sacks (circ.)

11" hole

8-5/8" Csg.Set @ 3751'

Cmt.W/ 400 sacks

T/cmt. by TS @ 2765'

7-7/8" hole

4-1/2" liner 3659-4487'. Bottom 2 jts are perforated w/2 holes/ft. Liner not cemented.

TD 9285'

P&A 1965 as follows:
75 sacks at 9285'
150 sacks at 5160'
100 sacks at 5022'
(WOC and tagged top of plug at 4750')
75 sacks at 4600'
50 sacks at 3790'
10 sacks at surface

Re-entered 1967. Cleaned out to 4490'.
Ran 27 jts. 4-1/2" liner, bull plugged on bottom, bottom 2 jts. perforated 2 holes/ft. Liner not cemented.

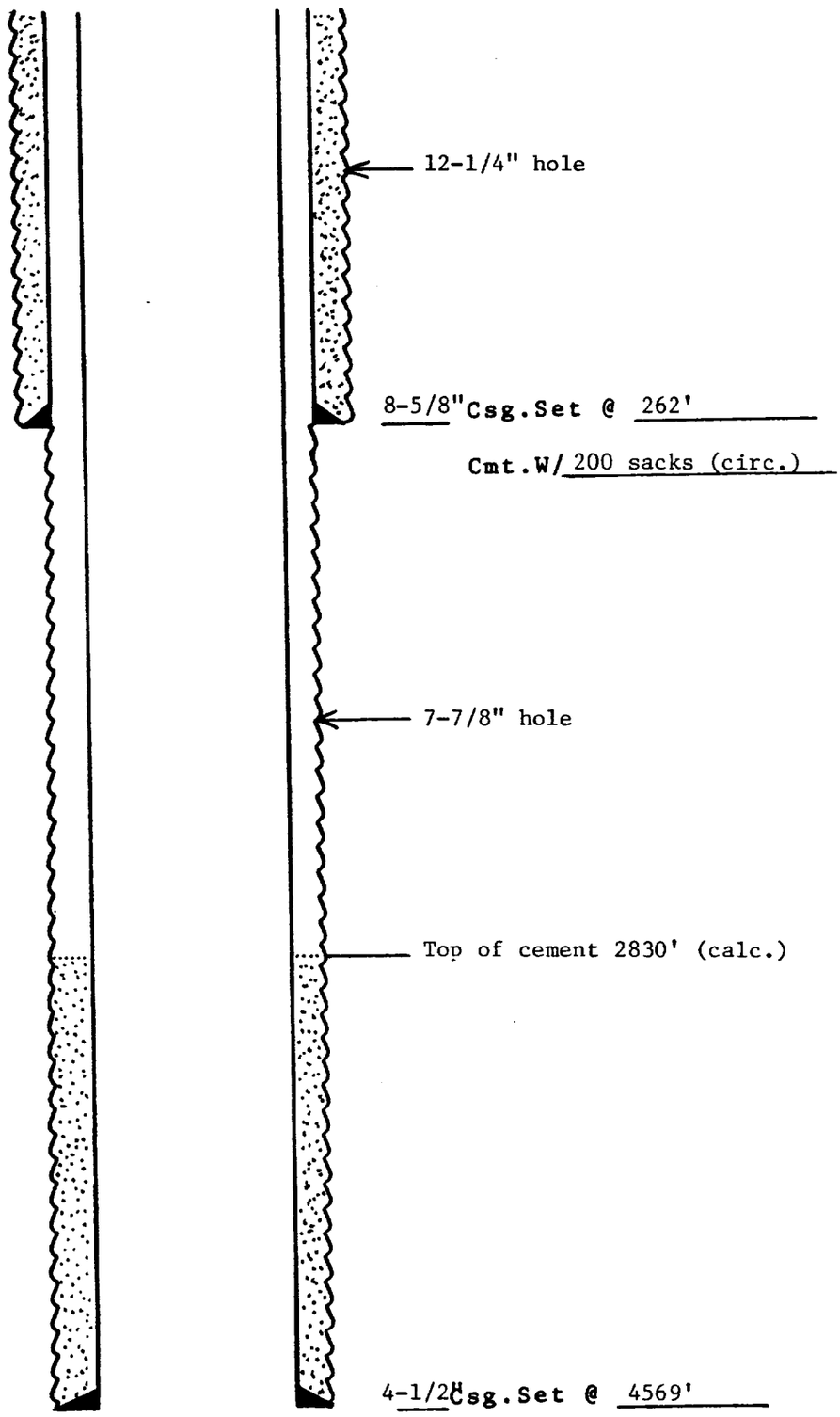
Date January 3, 1985

Lease Flying "M" (SA) Unit Tract 5 Well No. 2 Operator Coastal Oil & Gas Corp.

Location 659 ft. from North Line & 663 ft. from West Line, Sec. 16, Blk. _____

~~Survey~~ T-9-S, R-33-E County Lea State New Mexico

Elevation 4390' GR Remarks _____



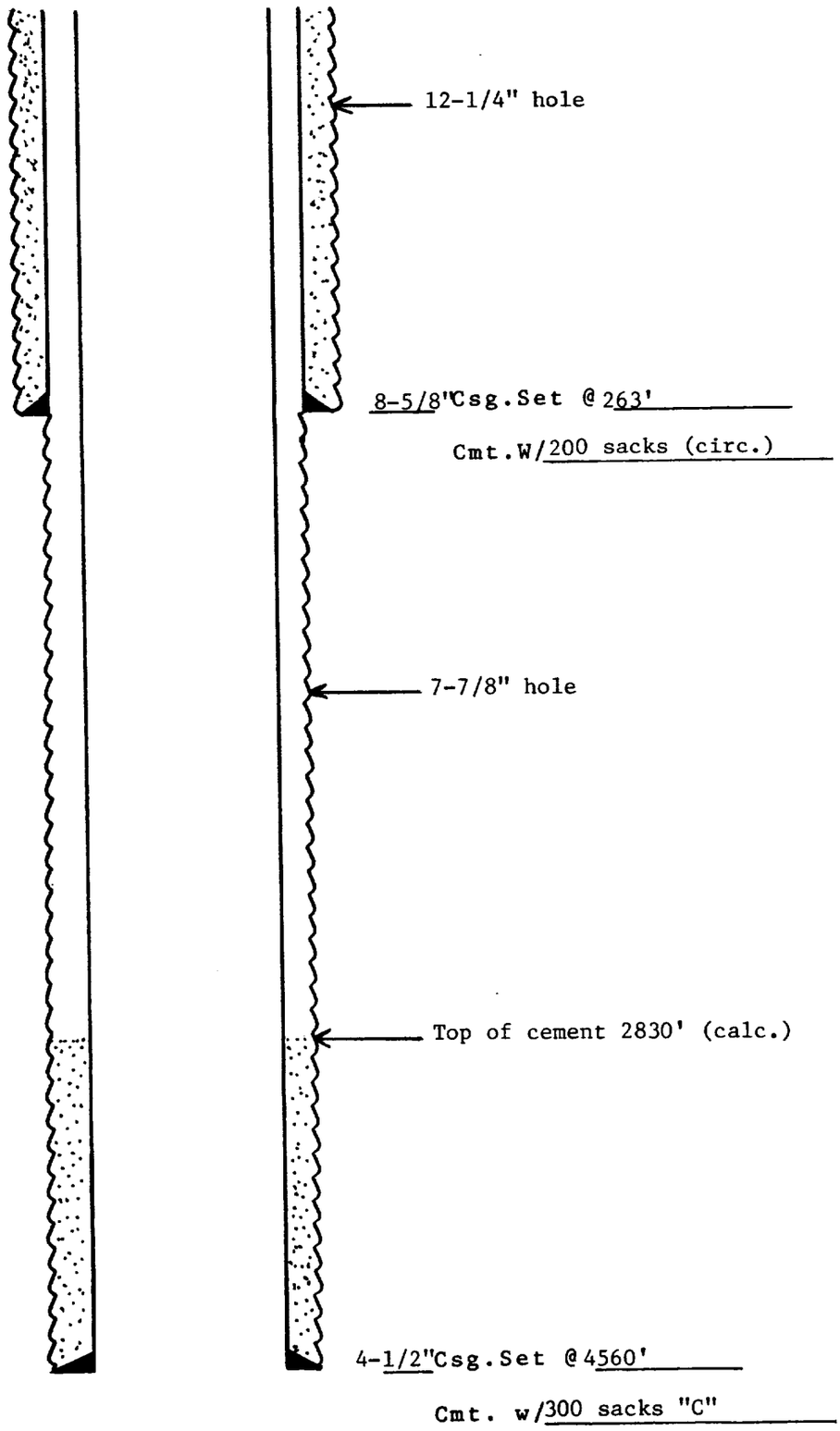
Date January 3, 1985

Lease Flying "M" (SA) Unit Tract 5 Well No. 3 Operator Coastal Oil & Gas Corp.

Location 1977 ft.from North Line & 663 ft.from West Line, Sec. 16, Blk.

Survey T-9-S, R-33-E County Lea State New Mexico

Elevation 4388' GR Remarks Spud Date 11-28-64.



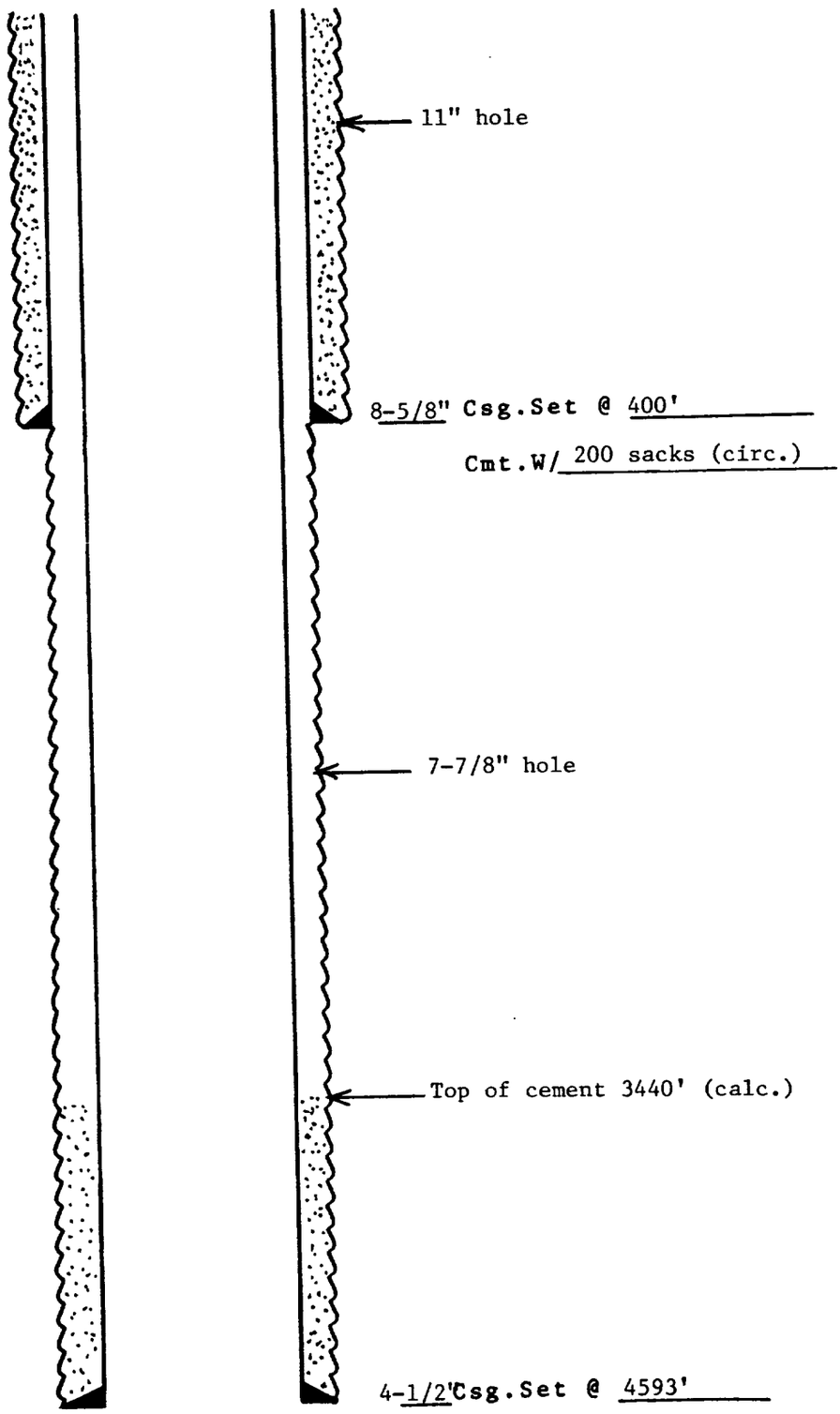
Date January 3, 1985

Lease Flying "M" (SA) Unit Tract 6 Well No. 1 Operator Coastal Oil & Gas Corp.

Location 2121 ft.from North Line & 1839 ft.from West Line, Sec. 16, Blk.

Survey T-9-S, R-33-E County Lea State New Mexico

Elevation Remarks



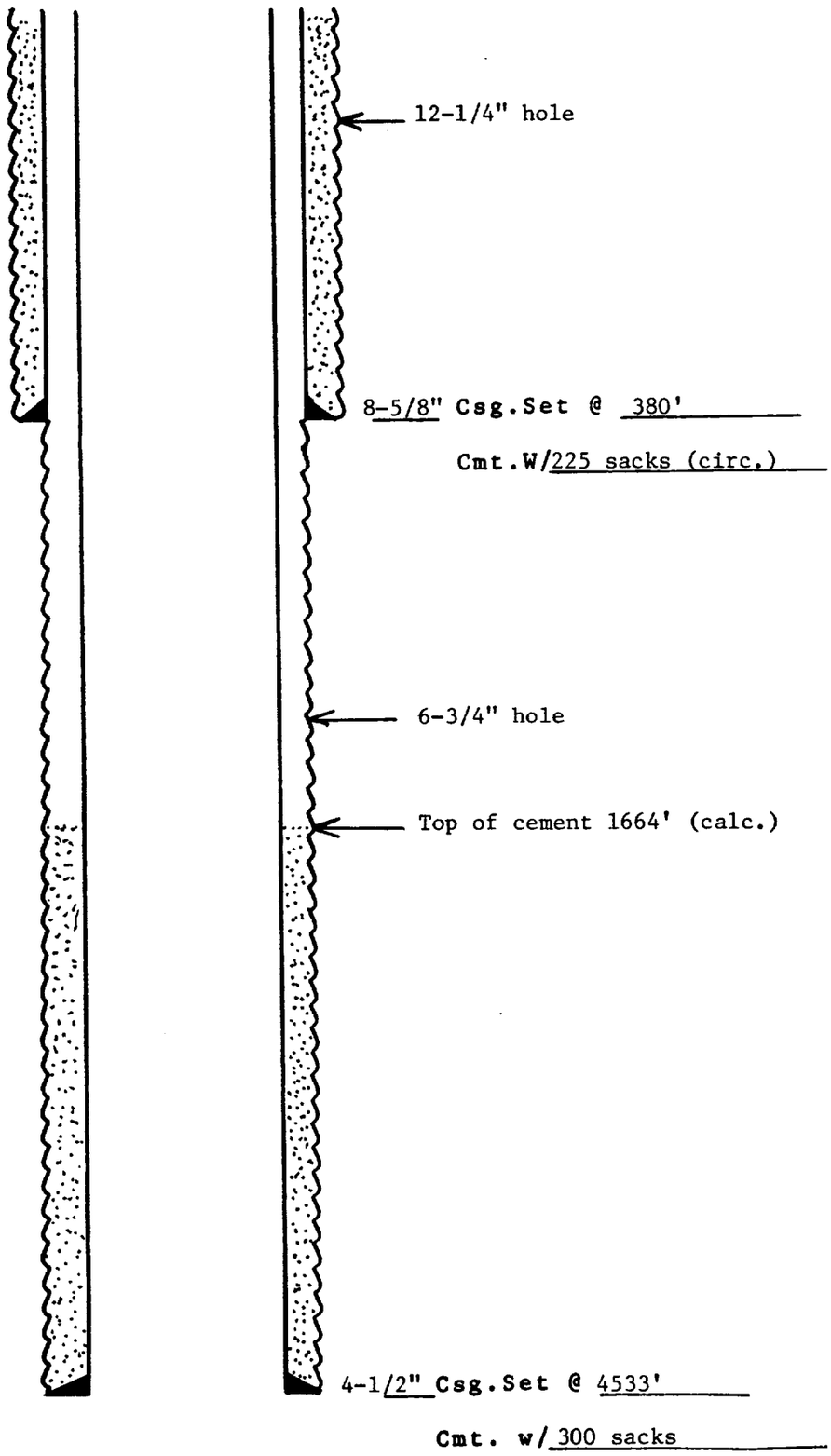
Date January 3, 1985

Lease Flying "M" (SA) Unit Tract 8 Well No. 1 Operator Coastal Oil & Gas Corp.

Location 659 ft. from South Line & 1996 ft. from West Line, Sec. 16, Blk. _____

Survey T-9-S, R-33-E County Lea State New Mexico

Elevation 4374' GR Remarks Converted to injection status August, 1968.



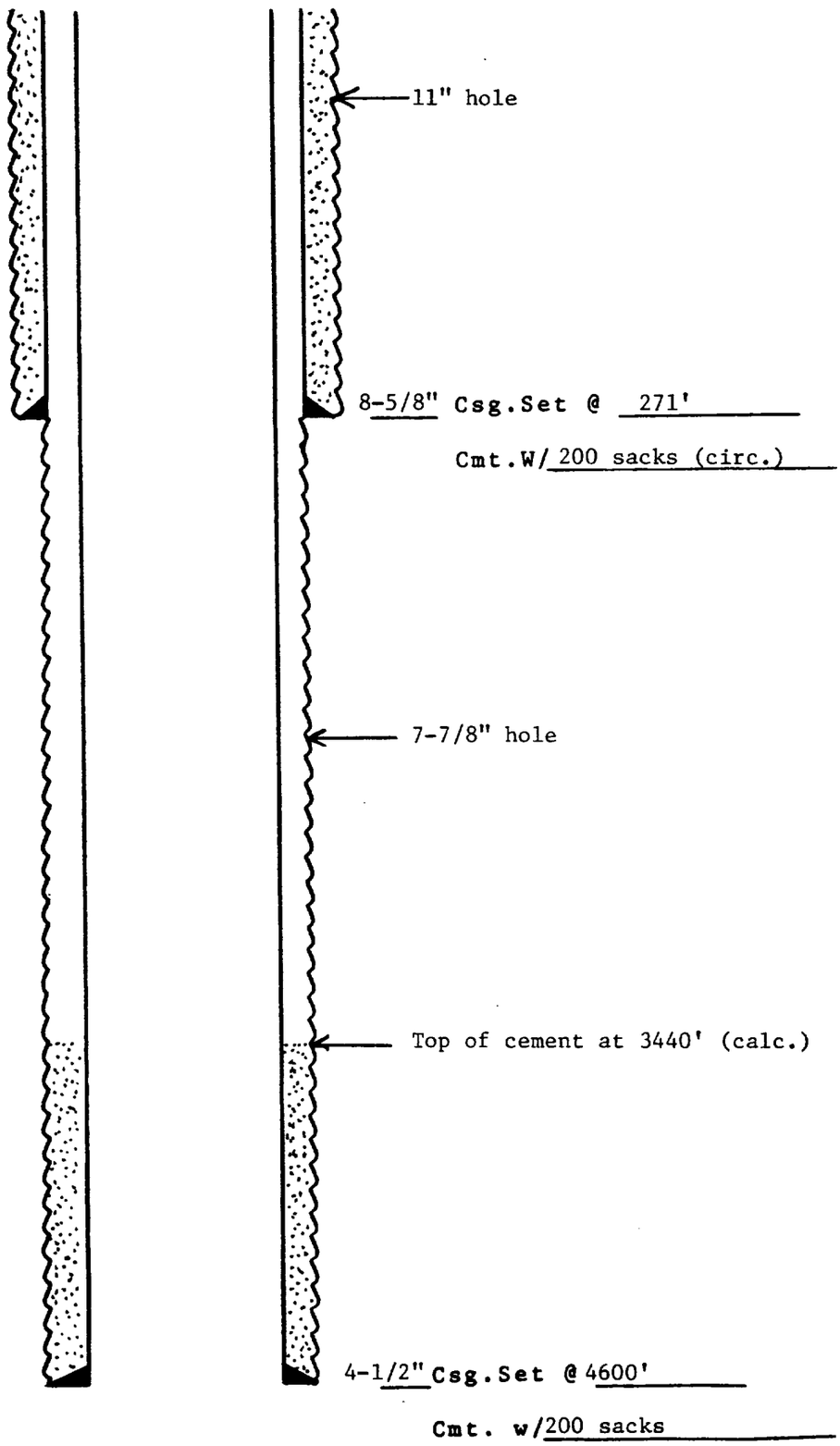
Date January 3, 1985

Lease Flying "M" (SA) Unit Tract 9 Well No. 3 Operator Coastal Oil & Gas Corp.

Location 1993 ft.from East Line & 1998 ft.from South Line, Sec. 16, Blk. _____

~~Survey~~ T-9-S, R-33-E County Lea State New Mexico

Elevation 4368' GR Remarks _____



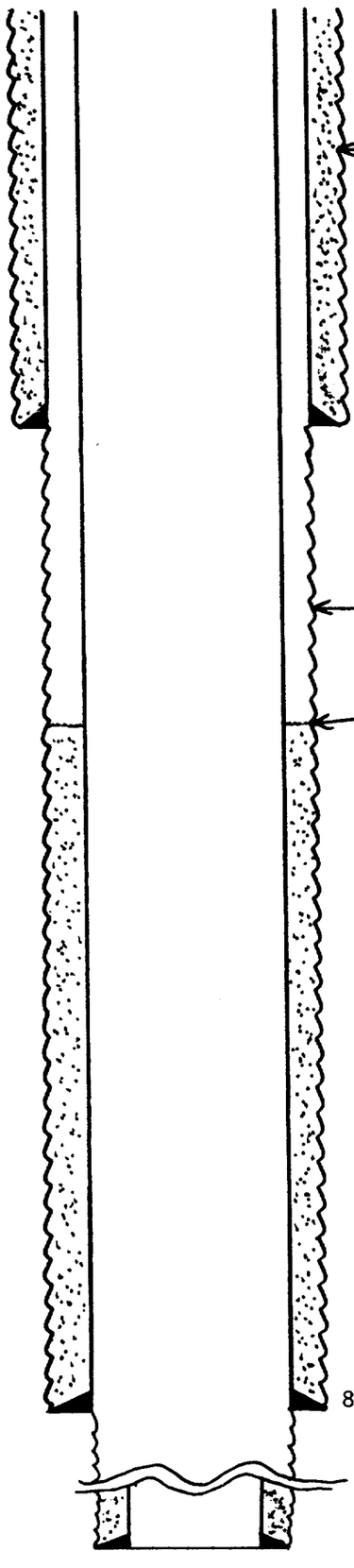
Date January 3, 1985

Lease Flying "M" (SA) Unit Well No. 4 Operator Coastal Oil & Gas Corp.

Location 660 ft.from West Line & 659 ft.from South Line, Sec. 16, Blk. ~~xxxxxx~~

~~Survey~~ T-9-S, R-33-E County Lea State New Mexico

Elevation 4384' GR Remarks Original TD 9400', completed in Bough "C". Completed in San Andres on 7-14-66. Converted to injection 1-14-73. Temporarily abandoned January, 1983. Will be P&A early 1985.



Original TD 9400'. Had 5-1/2" csg. set at 9400' and cemented w/300 sacks. Est. top of cement 8000'. Later plugged back as follows:
25 sacks at 9265' (perfs)
25 sacks at 7861' (5-1/2" csg. stub)
25 sacks at 6500'
25 sacks at 5100'
25 sacks at 4700'
BP at 4333' (in 8-5/8" csg.)

In 1983:
Spotted 50 sack plug at 4248-4378'.
Tagged plug. Well SI.