

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

January 7, 1985

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

JAN 101985

Gentlemen:

RECEIVED

Please find enclosed a copy of Form $C_{\bullet}^{\bullet}108$, 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 Petroleum Engineer

BLS:eh Attachment

of the earlier submittal.

OIL CONSERVATION DIVISION

POST OFFICE BUX 2088 STATE LAND OFFICE BUILDING 15315 COIKEM WE'R AT ATMAZ FORM C-108 Revised 7-1-81

APPLICATION FOR AUTHORIZATION TO INJECT A Pressure Maintenance Dinamal LiSecondary Recovery Storage Application qualifies for administrative approval? Operator: Coastal Oil & Gas Corporation 11. Address: P. O. Box 235, Midland, Texas 79702 Phone: 915 - 682-7925 Contact party: Bobby L. Smith 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. Is this an expansion of an existing project? X ves 1 V . If yes, give the Division order number authorizing the project 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. Attach a tabulation of data on all wells of public record within the area of review which ٧I. 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: Proposed average and maximum daily rate and volume of fluids to be injected: 2. Whether the system is open or closed; Proposed average and maximum injection pressure: 3. Sources and an appropriate analysis of injection fluid and compatibility with 4. 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 imay be measured or inferred from existing literature, studies, nearby wells, etc. /. Attach appropriate geological data on the injection zone including appropriate lithologic *vIII. detail, geological name, thickness, and depth. Sive 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. Describe the proposed stimulation program, if any. IX. Attach appropriate logging and test data on the well. (If well logs have teen filed with the Division they need not be resubmitted.) Attach a chemical analysis of fresh water from two or more fresh water wells (if XI. available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken. Applicants for disposal wells must make an affirmative statement that they have XII. 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 scurce 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. ____ Title Petroleum Engineer Name: Bobby L. Smith Signature: Bolder 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

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, sucks 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.

- 8. 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 dralled 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.

ast RA	Gas Corpora	Flying "M" (SA) Unit LEASE 16		33-E
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGF
Schematic	atic	Tabula	Tabular Data	
		Size 8-5/8 "	Cemented with	200
	8-5/8" csg. @ 259"	TOC Surface feet	feet determined by V	Visual
	7-7/8" hole	Intermediate Casing Size "	Cemented with	* * * * * * * * * * * * * * * * * * *
		Toc Feet	feet determined by	
		Hole size		
~~~	~~~	Long string		
www.	← Est. I/cmt. @ 3000'	Size 4-1/2 " 100 3000 feet	Cemented with determined by	300 sx.
		Hole size 7-7/8		
		Total depth 4600'		
	4-1/2" csg. ( 4600"	Injection interval		
		4454 feet to perforated or open-hole,	4490 indicate which)	icet

Tub	Tubing size 2-3/8" 4.7#/ft. lined with Salta PVC (motorial)
	bac
(0r	(brand and model) (or describe any other casing-tubing seal).
0 th	Other Data
1.	Name of the injection formation San Andres
2.	Name of Field or Pool (if applicable, Flying "h" (SA)
3.	Is this a new well drilled for injection? $/\!\!\!\!/ /$ Yes $/\!\!\!\!/ \sqrt{X}\!\!\!/$ 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.

T-9-S, R-33-E	County Lea	.from South Line, Sec. 16, XXX  State New Mexico
levation <u>4384' GR</u> Remarks	Spud Date 6-	1-64
		,
	<i>(:</i> 1 1	( (·::)
	<b>}</b>	
		8-5/8'Csq. Set @259' in 12-1//
	3	8-5/8'Csg.Set @259' in 12-1/4' hole.  Cmt.W/ 200 sacks (circ.)
	}	
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	}	
	<b>)</b>	Est. top of cement at 3000'
	<b>}</b>	(calc.)
	<b>\</b>	
	<b>{</b>	

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

Cmt. w/ 300 sacks.

	Date January 3, 1985
	ct 4 Well No. 1 Operator Coastal Oil & Gas Corp.
	Line & 660 ft.from South Line, Sec. 17, Blk.
	County Lea State New Mexico
Elevation 4377 GR Remarks	
	9-5/8" hole  7-5/8"Csg.Set @ 432"  Cmt.W/250 sacks (circ.)
	6-3/4" hole
	Est. top of cement 2650' (calc.)  4-1/2'csg.Set @ 4570'

Cmt. w/200 sacks "C"

Est. T/cmt. 2650' (calc.)

				Date	January	3, 1985
Lease Flying "M" (SA) Unit Trad	ct 4	Well No. 2	2(	Operato	r Coastal Oi	1 & Gas Corp.
Location 1980 ft.from Sout	hLine &	<u>1980</u> ft.from	East	Line,	Sec. <u>17</u> ,	Rakk
<b>T-9-S,</b> R-33-E	County	Lea		State	New Mexico	
Elevation 4385 GR Remarks	Well	P&A on 4-10-74	4.			
				_	`	
Set 10 sack plug at surface.	4.4%	Zaven Oriver	.a			
oct to sack plug at sufface.			1 }			
	}		13			
	}		K	9-5	/8" hole	
	<b>}</b>					
	{:		i}			
Set 50 sack plug at 300 '.	<b>\{</b>		- 3			
3	• ' }		] {			
3			كالح	7 <u>-5/8"</u>	Csg.Set @	431'
	}		{		Cmt.W/ 250	sacks (circ.)
			_{			
Cut 4-1/2" csg. at 1460' and pulled. Set 45 sack plug at 1460	o'.		<del>[</del> }			
	}		\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	6-3/4" h	ole	
	}		[	3, 1		
	}		{			
	}		}			
	<b>\</b>		] }	Est. top	of cement 2	640' (calc.)
	<b>(</b>					0.10 (0010.)
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CIBP at 4350' - 3 sacks on top	<b>\begin{align*}</b>		<u> </u>			
	<b>)</b> (5)		13			
	<b>(</b>					
	<b>(</b> :::		3			
				4-1 <u>/2"</u> Cs	sg.Set @ _	4550 <b>'</b>
				Cr	nt. w/ 200	sacks "C"

			Date _	January 3, 1984
Lease Flying "M" (SA) Unit Tract	<u>4</u> w	ell No. <u>3</u>	Operator	Coastal Oil & Gas Corp.
Location 2116 ft.from North				
<b>8</b> ## <b>**</b> T-9-S, R-33-E				
Elevation 4376' GR Remarks				
		}		
				,
				g.Set @ <u>414'</u> t.W/ 200 sacks (circ.)
				op of cement 3400' (calc.)
	<b>\</b>		4- <u>1/2"</u> Csg.	<b>Set @</b> 4554'

Cmt. w/ 200 sacks "C"

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 1<u>1-3/4</u>'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. 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' TD 9285' 10 sacks at surface

Re-entered 1967. Cleaned out to 4490'.

cemented.

Ran 27 jts. 4-1/2" liner, bull plugged on bottom, bottom 2 jts. perforated 2 holes/ft. Liner not

					Date January 3, 1985
Lease Flying "M" (SA) Unit Tra	ct 5	Wel	No.	2	Operator Coastal Oil & Gas Corp.
Location 659 ft.from North	Line &	663_f	t.from	West	Line, Sec. <u>16</u> , Blk
<b>Swrwey</b> T-9-S, R-33-E	County	Lea			State New Mexico
Elevation 4390' GR Remarks					
Elevation 4390' GR Remarks					8-5/8"Csg.Set @ 262' Cmt.W/200 sacks (circ.)
					4-1/2 <b>ësg.Set @</b> 4569'

Cmt. w/ 300 sacks

Lease Flying "M" (SA) Unit Tract 5 Well  Location 1977 ft.from North Line & 663 ft  Surrowey T-9-S, R-33-E County Lea  Elevation 4388' GR Remarks Spud Date	.from West Line, Sec. 16, Blk  State New Mexico
Elevation 4388' GR Remarks Spud Date	
	4-1/2"Csg.Set @4560'

Cmt. w/300 sacks "C"

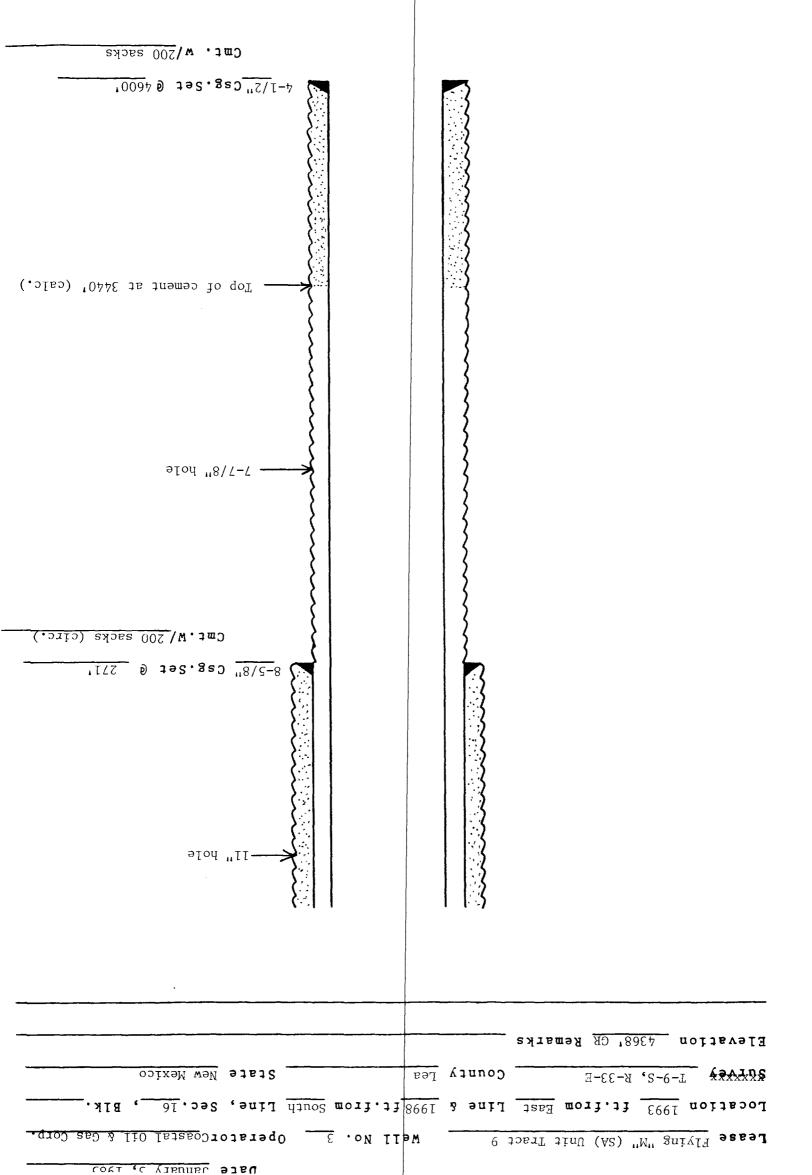
		Date	e January 3, 1985
Lease Flying "M" (SA) Unit Trac	t 6 Well	No. 1 Operate	or Coastal Oil & Gas Corp.
Location 2121 ft.from North	Line & 1839 f	.from West Line,	Sec. <u>16</u> , Blk
******** T-9-S, R-33-E	County Lea	State	New Mexico
Elevation Remarks			
			`
	(#) I	1 150)	
		11'	'hole
		9.5/01	Csg.Set @ 400'
	7	1 }	Cmt.W/ 200 sacks (circ.)
	{	}	Omc : #/
	<b>}</b>	}	
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	<b>}</b>	7-7	7/8" hole
	}	{	
	}	{	
	<b>}</b>	{	
	}		
	}		
	<b>\</b>	Top	of cement 3440' (calc.)
	<b>\}</b>		
	<b>}</b>		
		4-1/2 <b>'C</b> s	sg.Set @ 4593'

Cmt. w/ 200 sacks "C"

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. SXXXXXX T-9-S, R-33-E County Lea State New Mexico Elevation 4374' GR Remarks Converted to injection status August, 1968. _ 12-1/4" hole 8-5/8" Csg.Set @ 380' Cmt.W/225 sacks (circ.) -- 6-3/4" hole Top of cement 1664' (calc.)

4-1/2" Csg.Set @ 4533'

Cmt. w/300 sacks



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. 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. - 17-1/2" hole 13-3/8**csg.Set** @ 340' Cmt.W/ 350 sacks (circ.) <del>-</del>11" hole _ Top of cement 2260' (calc.) 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  $8-5/8'' \cos$ .) In 1983: Spotted 50 sack plug at 4248-4378'. Tagged plug. Well SI. 8-5/8" Csg.Set @ 4599' Cmt. w/450 sacks

7-7/8" hole

5-1/2" csg. set at 9400'. Cemented w/300 sacks.

# INTENTIONAL OMISSIONS

The following document(s) have been intentionally indicated reasons.	omitted from this file due to the
FILE # PMX 136	
FILE # / /V( / (3 G)	
DESCRIPTION OF OMITTE	ED DOCUMENTS
OMITTED DOCUMENT	REASON OMITTED
Legend MAP (Plat)	Too Large_
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## NEW WESTER OFF CONSERNATION COMMISSION

NOTIFICATION OF FIRE, BREAKS, SPILLS, LEAKS, AND ELOWOUTS

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SIGNED /	111691	*** VIIVUH	ADDITIONAL		4/ 1/F	MECECO	νρΛ )-37	1		111 / /	/ / /

IAN 16 1985



### STATE OF NEW MEXICO

# ENERGY AND MINERALS DEPARTMENT

# OIL CONSERVATION DIVISION HOBBS DISTRICT OFFICE

January 14, 1985

TONEY ANAYA

POST OFFICE BOX 1980 OBBS, NEW MEXICO 88240 (505) 393-6161

GOVERNOR /	HOBBS, NEW MEX (505) 393-6
OIL CONSERVATION DIVISION P. O. BOX 2088 SANTA FE, NEW MEXICO 87501	
RE: Proposed: MC DHC NSL NSP SWD WFX PMX X	
Gentlemen:	
I have examined the application for the:	
Coastal Oil & Gas Corp. Flying M (SA) Un Operator Lease & Well No	it Tr. 10 #2-L 16-9-33 . Unit S-T-R
and my recommendations are as follows:	
0.KJ.S.	
Yours very truly,	
Yours very truly,	
Jerry Sexton Supervisor, District 1	
/mc	

# LARGE FORMAT EXHIBIT HAS BEEN REMOVED AND IS LOCATED IN THE NEXT FILE