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

APPLICATION OF SOUTHERN UNION GAS COMPANY FOR UNDERGROUND GAS STORAGE FINDINGS, SANDOVAL COUNTY, NEW MEXICO.

MAY 3 " 1976
OIL CON. COM.
DIGT 3

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on June 10, 1975, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 27th day of April, 1976, 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 in the subject case, Southern Union Gas Company, is in the process of developing an underground natural gas storage project in Sandoval County, New Mexico, to be known as the Las Milpas Gas Storage Project.
- (3) That the applicant has conducted geological and engineering studies to confirm the existence of a geological structure underlying Sections 17, 18, 19, 20, 29, 30, 31, and 32 of Township 15 North, Range 1 East, NMPM, and Sections 13, 24, 25, and 36 of Township 15 North, Range 1 West, NMPM, Sandoval County, New Mexico, and to determine the suitability of said geological structure for the underground storage of natural gas.
- (4) That the applicant has determined that the above-described geological structure does exist, and that the Aqua Zarca formation within said structure, being a permeable sandstone overlain by an impermeable shale layer, should constitute a satisfactory bed for the storage of gas.

Form	9-331	
May	1963	•

UNITED STATES DEPARTMENT OF THE INTERIOR (Other instructions on re-

Budget Bureau No. 42-R1424 5. LEASE DESIGNATION AND SERIAL NO.

GEOLOGICAL SURVEY

SUNDRY NOTICE	SAND	REPORTS	ON WELL	LS
use this form for proposals to Use "APPLICATIO"				

14-08-0001-12395

	TICES AND REPORTS ON WELLS	o. Il Indian, Accord	LEE OR THIBE NAME	
(Do not use this form for prop Use "APPL l	nosals to drill or to deepen or plug back to a different reservoir. CATION FOR PERMIT—" for such proposals.)			
OIL GAS (V)		7. UNIT AGREEMENT	NAME	
OIL GAS WELL OTHER	GAS STORAGE	Las Milpas		
2. NAME OF OPERATOR	8. FARM OR LEASE NAME			
Southern Union Explor	San Ysidro			
3. ADDRESS OF OPERATOR		9. WELL NO.		
Suite 1800 First Inte	rnational Bldg., Dallas, Texas 75270	#8		
	clearly and in accordance with any State requirements.	10. FIELD AND POOL, OR WILDCAT		
At surface		Storage		
504' FSL & 2080' FWL	11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA			
		Sec 20, T15	N, RIE NMPN	
14. PERMIT NO.	15. ELEVATIONS (Show whether DF, RT, GR, etc.)	12. COUNTY OR PARIS	H 13. STATE	
	5820 g1	Sandoval	New Mexico	
16. Chark A	peroprieta Roy To Indicate Nation of Nation Parada	O.L. D. I.		

16

NOTICE OF INTENTION TO:			SUBSEQUENT REPORT OF:					
TEST WATER SHUT-OFF		PULL OR ALTER CASING MULTIPLE COMPLETE]	WATER SHUT-OFF REPAIRING WELL]		
SHOOT OR ACIDIZE		ABANDON*			FRACTURE TREATMENT SHOOTING OR ACIDIZING ABANDONMENT*			
(Other)	L	CHANGE PLANS			(Other) Run Casing & cementing X (Norr: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)]		
DATE CHIEF UPARASER OF COURT FTER OFFE TIONS (Closuly state of particular days)								

- SCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and sones pertinent to this work.)*
 - 8-31-79 Drilled to 446' & ran 11 jts of 8 5/8" OD J-55, 24# surface casing, 432.31', set at 446' RKB. Cemented using Halliburton with 330 sacks of Class "B", circulated cement at surface.
 - Drilled to 2455' & ran 5 1/2" production casing to 2445', 15.5#, cemented 1st stage using 360 sacks of Class "C" with 25# of Gilsonite. Cemented 9-09-79 2nd stage using 450 sacks of Class "C" with 10# of Gilsonite.
 - DV Tool Located at 1150.83 feet.
 - 9-19-79 Perforations are located from 2243' to 2265' with a total of 10 shots.



10	The state of the s					Let' 1	<u> 11 11 11 11 11 11 11 11</u>	
	SIGNED ON A RESEARCH		Drlg	& Production	Engineer	DATE 10/	9/79	<u>}</u>
	(This space for Federal or State office use)					<u> </u>		_
	APPROVED BY	TITLE				DATE	P-7-2-1	

OCT 11 1979

-2-Case No. 5502 R-5079

- (5) That although preliminary investigation of the geological structure being proposed for underground gas storage indicates that its areal extent may be somewhat less than the entire area described in Finding No. (3) above, all of said lands should be included within the horizontal limits of the Las Milpas Gas Storage Project in order to protect the structure from drainage by non-project wells in the event the areal extent of the structure is larger than presently believed.
- (6) That the Poleo formation, which overlays the impermeable shale described in Finding No. (4) above, should be included within the vertical limits of the Las Milpas Gas Storage Project in order that pressure observation wells may be drilled into the Poleo formation to verify the integrity of the shale bed and to assure that gas in storage in the Agua Zarca formation is not migrating upward and escaping from the Agua Zarca formation.
- (7) That the applicant has attempted to acquire gas storage rights in the interval from the top of the Poleo formation to the base of the Agua Zarca formation underlying Sections 17, 18, 19, 20, 29, 30, 31, and 32, Township 15 North, Range 1 East, NMPM, and Sections 13, 24, 25, and 36, Township 15 North, Range 1 West, NMPM, Sandoval County, New Mexico, and has indeed acquired such rights underlying more than 80 percent of said lands, and is in the process of acquiring such rights underlying portions of the remaining lands.
- (8) That despite the efforts of the applicant, it appears that gas storage rights underlying certain portions of the lands described in Finding No. (7) above may remain outstanding.
- (9) That it appears that to obtain gas storage rights underlying all of the lands described in Finding No. (7) above, the applicant may find it necessary to resort to eminent domain proceedings as provided by Sections 65-9-1 through 65-9-8, NMSA 1953 Comp.
- (10) That pursuant to Section 65-9-5 NMSA, 1953 Comp., the instant case was called to consider the propriety of utilization for underground storage of natural gas of the sub-surface strata from the top of the Poleo formation to the base of the Agua Zarca formation underlying Sections 17, 18, 19, 20, 29, 30, 31, and 32, Township 15 North, Range 1 East, NMPM, and Sections 13, 24, 25, and 36, Township 15 North, Range 1 West, NMPM, Sandoval County, New Mexico, and consequently thereto, the Commission finds:
 - A. That the above-described sub-surface interval underlying the above described lands is suitable for the underground storage of natural gas and should be designated as the Las Milpas Gas Storage Project.

- B. That the Las Milpas Gas Storage Project is incapable of producing oil in paying quantities through any known recovery method.
- C. That the Las Milpas Gas Storage Project does not underlie any known commercial deposits of potash.
- D. That storage of natural gas in the Las Milpas Gas Storage Project will not cause injury to surface or underground water resources.
- E. That the Las Milpas Gas Storage Project does not, or has not been known, to contain native gas capable of production in paying quantities.
- F. That the horizontal extent of the displaced or injected gas in the above-described subsurface interval will be within the outer boundaries of the above-described lands.
- G. That no portion of the above-described subsurface interval underlying the above-described lands has been appropriated or is being utilized for the injection, storage and withdrawal of natural gas by any other than the applicant, Southern Union Gas Company.
- (11) That jurisdiction of this cause is retained for the entry of such further findings as may be necessary.

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

PHIL R. LUCERO, Member

JOE D. RAMEY, Member & Secretary

SEAL