Shell Western E&P Inc.



A Subsidiary of Shell Oil Company

December 17, 1987

P.O. Box 576 Houston, TX 77001



State of New Mexico Energy and Minerals Department Oil Conservation Division P. O. Box 2088 Santa Fe, NM 87504-2088

Gentlemen:

SUBJECT: EXPANSION OF PRESSURE MAINTENANCE PROJECT

SHELL - NORTH HOBBS (GRAYBURG/SAN ANDRES) UNIT

HOBBS (GRAYBURG/SAN ANDRES) POOL TOWNSHIP 18 SOUTH, RANGE 37 & 38 EAST

LEA COUNTY, NEW MEXICO

Shell Western E&P Inc. respectfully requests administrative approval for expansion of the subject pressure maintenance project. Administrative Order No. R-6199 granted November 30, 1979, authorized Shell to conduct the North Hobbs (Grayburg/San Andres) Unit pressure maintenance project within the subject pool.

The attached tabulation indicates the locations of 16 wells we propose to convert to water injection service, plus the proposed location of a well to be drilled for injection.

The following information is submitted in support of this request:

- 1. Plat of Unit with proposed injectors and their project area.
- 2. "Typical" diagrammatic sketch for the proposed wells, injection tubing, packer, pressure control elements, and identifying the proposed San Andres injection interval.
- 3. The source of water will be reinjected produced water.
- 4. Injection will be into the San Andres formation at an approximate well interval of 4030' to 4270'. Surface injection pressure will be limited to .2 psi per foot gradient to the top perforation, with an anticipated initial daily volume of 2000 barrels of water per day per well, increasing to a maximum of 3500 barrels of water per day per well. Average and maximum injection pressures will be in accordance with Rule 11 of Order No. R-6199.

- 5. Well No. 322 (Sec. 31) will be cased through the completion interval and selectively perforated over a 200¹ interval in the San Andres Zones II, IIIU, and IIIL and acidized with approximately 150 gals of 15% HCL-NEA per perforation. A similar stimulation program will be applied to the 16 conversions if necessary.
- 6. An Affidavit of Publication certifying the newspaper legal notice.
- 7. List of offset operator and surface owners.
- 8. Tabulations indicating casing detail and the proposed injection interval for each well to be converted.
- 9. Area of Review Supplement.
- 10. All entities in Item Seven have been notified by certified mail.

If additional information is required, please advise.

Yours very truly,

シなべい

A. J. Fore

Supervisor Regulatory and Permitting Safety, Environmental, and Administration Western Division

JMW: PEE

Attachments

cc: State of New Mexico
Energy and Minerals Department
Oil Conservation Division
P. O. Box 1980
Hobbs, NM 88240

State of New Mexico Office of Land Commissioner P. O. Box 1148 Santa Fe, NM 87501

OIL CONSERVATION DIVISION POST OFFICE BOX 2008 STATE LAND OFFICE BUILDING SANTA FE, NEW MEXICO 87501

FORM C-108 Revised 7-1-81

APPLIC	ATION FOR AUTHORIZATION TO INJECT
I.	Purpose: Secondary Recovery X Pressure Maintenance Disposal Storage Application qualifies for administrative approval? yes no
II.	Operator: SHELL WESTERN E&P INC.
	Address: P. O. BOX 576, HOUSTON, TX 77001 (WCK 4435)
	Contact party: A. J. FORE Phone: (713) 870-3787
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? \overline{X} yes $\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ $
٧.	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. (Supplemental data for wells drilled since
VII.	Attach data on the proposed operation, including: 2000 3500 1. Proposed average and maximum daily rate and volume of fluids to be injected;
	 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.).
111.	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.
х.	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.
III.	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: A. J. FORE Title SUPV. REG. & PERMITTING
	Signature: Date: DECEMBER 14, 1987
submi	he information required under Sections VI, VIII, X, and XI above has been previously itted, it need not be duplicated and resubmitted. Please show the date and circumstance he earlier submittal. HEARING OCTOBER 3, 1979

CASE NO. 6653, ORDER NO. R-6199

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

III. WELL DATA

14.25 CAT 10.25

- 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:

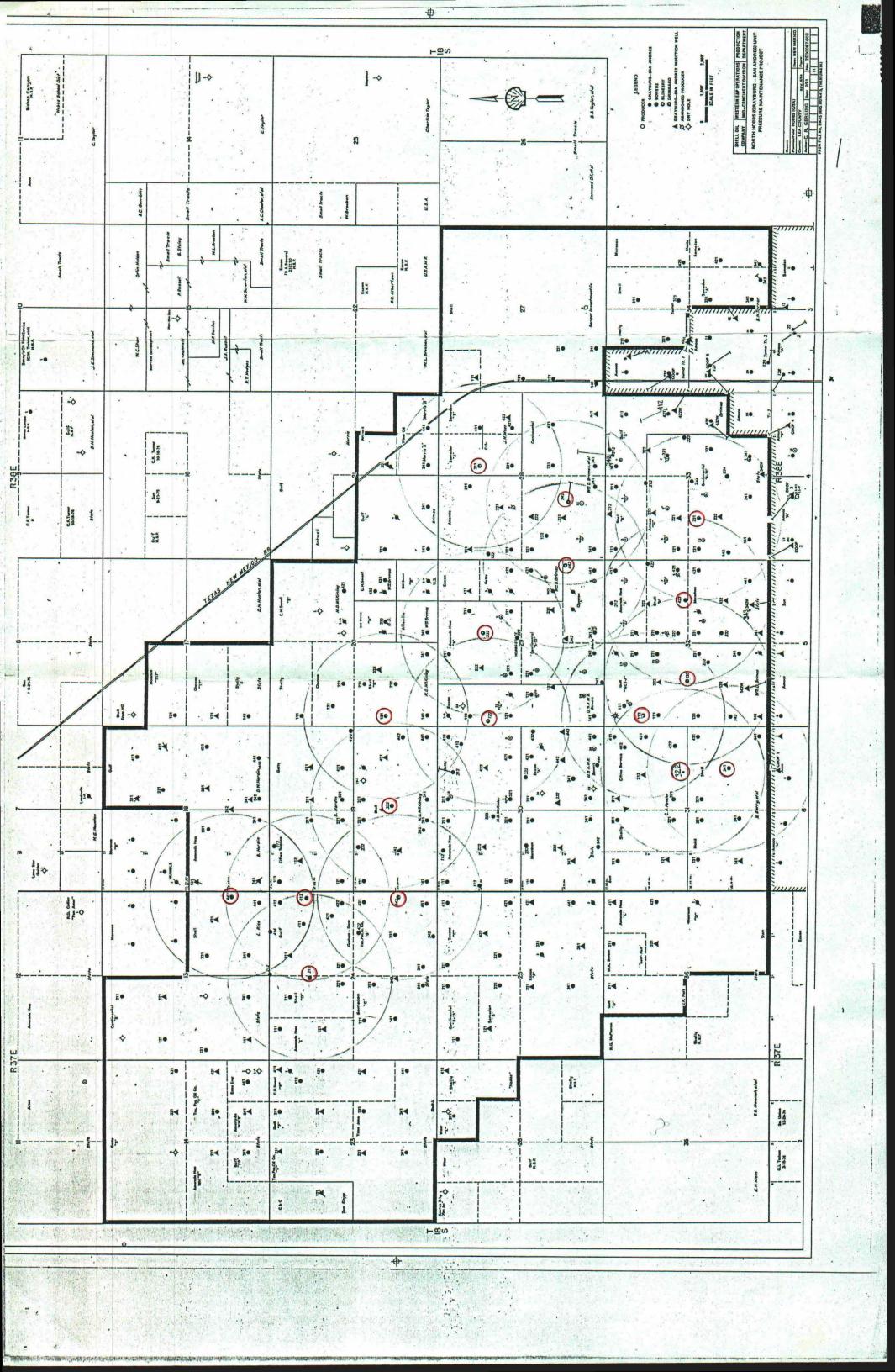
- (1) The name, address, phone number, and contact party for the applicant;
- (2) the intended purpose of the injection well; with the exact location of single wells or the section, township, and range location of multiple wells;
- (3) the formation name and depth with expected maximum injection rates 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.

SHELL WESTERN E&P INC. NORTH HOBBS (GRAYBURG/SAN ANDRES) UNIT N.M.O.C.D. ORDER NO. R-6199 HOBBS (GRAYBURG/SAN ANDRES) POOL LEA COUNTY, NEW MEXICO

WELL NO.	RGE	TWP	SEC	SURFACE LOCATION
442 332 131 212 413 442 242 311 122 322 442 *322 442 *322 341 112 223 423 231	37E 38E 38E 37E 37E 37E 38E 38E 38E 38E 38E 38E 38E 38E 38E 38	18S 18S 18S 18S 18S 18S 18S 18S 18S 18S	13 19 20 24 24 24 28 29 29 29 31 31 32 32 32	1220' FSL & 220' FEL 1430' FSL & 2535' FEL 1650' FSL & 330' FWL 1263' FNL & 2605' FWL 1200' FNL & 206' FEL 1260' FNL & 200' FEL 1166' FSL & 1823' FWL 1315' FNL & 2290' FEL 1600' FNL & 180' FWL 1430' FNL & 2350' FEL 1230' FSL & 220' FEL 1230' FSL & 220' FEL 12370' FNL & 1509' FEL 1315' FSL & 1325' FEL 1370' FNL & 330' FWL 2630' FNL & 1420' FWL 2540' FNL & 1280' FEL 2310' FSL & 1320' FWL

^{*} Proposed well location



SHELL WESTERN E&P INC. NORTH HOBBS (GRAYBURG/SAN ANDRES) UNIT N.M.O.C.D. ORDER NO. R-6199 EXPANSION OF PRESSURE MAINTENANCE PROJECT HOBBS (GRAYBURG/SAN ANDRES) POOL, LEA COUNTY, NEW MEXICO

TYPICAL SCHEMATIC

EST. ELEVATION: 3640' KB

	Annulus Pressure Gauge) ⊗ Bradenhead Monitor
Ogallala Red Beds	200'	13-3/8" Conductor cmt'd @ 40' with 60 sx cmt (circulated)
Rustler	1500'	
Salt	1590'	8-5/8" 24# K55 STC csg cmt'd @ 1520' w/ ± 785 sx cmt to
Yates	2640'	surface
Seven Rivers	2850'	Annulus fluid: Inhibited Brine
Bowers	3150'	
Queen	3365'	2-7/8" OD Duoline tubing
Byers	3530'	
Grayburg	3730'	
San Andres	3980'	Guiberson Uni-Pkr VI set @ ± 3930'
		O Top — ±4030' O San Andres Zones O II, IIIU, IIIL O Bottom — ±4270'
TD	4350'	5-1/2" 14# K55 STC csg cmt'd @ 4350' w/± 435 sx cmt to surface

AFFIDAVIT OF PUBLICATION

State of New Mexico, County of Lea.
County of Lea.
Ι,
Mark C. Keeling
of the Hobbs Daily News-Sun, a daily newspaper published at Hobbs, New Mexico, do solemnly swear that the clipping attached hereto was published once a week in the regular and entire issue of said paper, and not a supplement thereof for a period
of
One weeks
$\frac{\text{One}}{\text{Beginning with the issue dated}} \text{weeks.}$
August 20 , 19 87 and ending with the issue dated
August 20 , 19 87
Mark O Keeling
Business Manager Sworn and subscribed to before
me this 11 day of
September , 19 87 West Musphy Notary Public.
Vera Murchy
Notary Public.
My Commission expires
November 14 , 19 88

This newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3, Chapter 167, Laws of 1937, and payment of fees for said publication has been made. NOTICE is hereby given of the application of Shell Western E&P Inc., Attention. A. J. Fore, Supervisor Regulatory and Permitting, P.O. Box 57.6, Houston, TX 77001, (713) 870-3787, to the Oil Conservation Division, New Mexico Energy & Minerals Department, for appreval of the following injection wells for the purpose of ecosure maintenance, and enganced recovery.

10131, 24-212, 24-413, 24-442, 28-242, 28-311, 29-122, 29-322, 29-442, 31-322, 31-341, 32-742, 32-223, 32-423/33-321, 22-223, 32-423/33-321, 22-223, 32-423/33-321, 23-223/33-321, 23-223/33-223/33-32, 23-23/33-32, 23-23/33-32, 23-23/33-32, 23-23/33-32, 23-23/33-32, 23-23/33-32, 23-23/33-32, 23-23/33-32, 23-23/33-32, 23-23/33-3

(15) days.

SERVICE LIST SHELL - NORTH HOBBS (G/SA) UNIT EXPANSION OF PRESSURE MAINTENANCE PROJECT

WELL NO.	SURFACE OWNER
13-442	Harry G. Huston Estate c/o Alice Huston Cushing 1605 Bayita Lane NW Albuquerque, NM 87107
19-332	Charles "Buck" Jones 2809 N. Bensing Rd. Hobbs, NM 88240
20-131	O. L. Harris 4625 San Jose Hobbs, NM 88240
28-242	Los Cuatro Inc. Box 1461 Hobbs, NM 88240
28-311	Keith Sparks, et al d/b/a KRG Enterprises 301 N. Canal St. Carlsbad, NM 88220
31-322 31-341	V. R. Jones Star Rt. A Box 440 Hobbs, NM 88220
29-322 29-442 29-122 32-112 32-223 32-423	Wm. C. Grimes Estate Trust c/o First Interstate Bank Box 400 Hobbs, NM 88240
33-231 24-212 24-442 24-413	State of New Mexico Commissioner of Public Lands P. O. Box 1148 Santa Fe, NM 87504-1148

OFFSET OPERATORS

Amoco Production Co. P. O. Box 3092 Houston, TX 77253

Amerada Hess Corporation P. O. Box 840 Seminole, TX 79360

Bravo Energy Inc. P. O. Box 2160 Hobbs, NM 88241

Texaco Producing Inc. P. O. Box 728 Hobbs, NM 88240 Chevron U.S.A. Inc. P. O. Box 670 Hobbs, NM 88240

Exxon Company U.S.A. P. O. Box 1600 Midland, TX 79702-1600

Penroc Oil Corporation Dr. 831 Midland, TX 79702-0831

Pontotoc Oil Corporation P. O. Box 5094 Midland, TX 79704

WELL DATA SHEET

Α.

(1) Lease Name: North Hobbs (G/SA) Unit

Location: See tabulation on page 3.

(2) Proposed Casing And Cement Program (Well No. 322; Sec. 31) (See attached tabulation for the 16 conversions.)

Hole Size	Casing	Weight/Foot	Setting Depth	SX Of CMT	Est. Top
17-1/2"	13-3/8"	Conductor	40'	60 SX	Surface
12-1/4"	8-5/8"	24#	1520'*	700 SX	Surface
7-7/8"	5-1/2"	14#	43501	1000 SX	Surface

*8-5/8" Casing will be set 20' below the Rustler top

- (3) 2-7/8" OD Duoline tubing set at approximately 3950'.
- (4) Guiberson Uni-PKR VI set within 100' of the top perforation will be used to isolate the annulus.

В.

- (1) The name of the injection formation is San Andres; Hobbs (Grayburg/San Andres) Pool.
- (2) See attached tabulation. The new well to be drilled will utilize a perforated injection interval.
- (3) Well No. 322 (Sec. 31) will be drilled for the purpose of injection. The 16 wells to be converted were originally drilled as producers.
- (4) See attached tabulation.
- (5) Next higher oil zone Queen @ 3365'±
 Next lower oil zone Drinkard @ 6600'±

*Calculated

SHELL WESTERN E&P INC.
NORTH HOBBS (GRAYBURG/SAN ANDRES) UNIT
N.M.O.C.D. ORDER NO. R-6199
SUPPLEMENT TO DATA PREVIOUSLY FURNISHED - AREA OF REVIEW
WELLS INSIDE UNIT AREA

	Completion Interval	0' - 4326'	15' - 4272'	4' - 4283'	17' - 4237'	:0' - 4318'	15' - 4283'	7' - 4336'	15' - 4269'	.5' - 4237'	.6' - 4293'	17' - 4229'
I	Hole Co Size I	12-1/4" 4150' 7-7/8"	12-1/4" 4165' 7-7/8"	12-1/4" 4144' 8-3/4"	12-1/4" 4207' 8-3/4"	12-1/4" 4220' 7-7/8"	12-1/4" 4205' 7-7/8"	12-1/4" 4267' 7-7/8"	12-1/4" 4205' 8-3/4"	12-1/4" 4115' 8-3/4"	12-1/4" 4216' 7-7/8"	12-1/4" 4097' 8-3/4"
	동.인			12-8-		7 12-	7 12-	/	12-	12-	12.	12-
	100	Circ Circ*	Circ / 3450'**	Circ Circ	circ* circ	Circ	Circ	Circ Surf**	Circ	Circ	Circ	Circ
Detai	Amt. of Cmt	875 sx 900 sx	875 sx 900 sx	625 sx 1220 sx	625 sx 900 sx	750 sx 920 sx	620 sx 1320 sx	785 sx 1350 sx	600 sx 950 sx	600 sx 850 sx	711 sx 730 sx	625 sx 875 sx
Casing	Setting Depth	1600' 4510'	1600' 4510'	1504' 4368'	1498' 4419'	1520' 4368'	1525' 4370'	1600' 4443'	1500' 4369'	1531' 4371'	1512' 4370'	1534' 4368'
	wt.	24# 14#	24# 14#	36# 20#	36# 20#	24# 14#	24, 32# 14#	24# 14#	36# 20#	36# 20#	24, 32# 14#	36# 20#
	Size	8-5/8" 5-1/2"	8-5/8" 5-1/2"	9-5/8" 7"	9-5/8"	8-5/8" 5-1/2"	8-5/8" 5-1/2"	8-5/8" 5-1/2"	9-5/8"	9-5/8"	8-5/8" 5-1/2"	9-5/8"
;	Well Type	Injector	Injector	011	0i1	li0	0i1	Injector	CiO	Lio	011	011
;	TD PBTD	4510' 4470'	4510' 4437'	4370' 4320'	4420' 4270'	4370'	4370'	4443' 4348'	4370'	4371'	4370' 4325'	4368'
	Date Drilled	1/81	12/80	4/85	5/85	5/85	11/84	7/80	3/85	2/85	10/84	3/85
	Elev.	3665' GL	3660' GL	3665' GL	3661' GL	3653' GL	3653' GL	3667' GL	3668' GL	3665' GL	3671' GL	3666° GL
:	We]]	242	142	212	232	422	442	242	312	342	414	432
Location	S-T-R Footage	18-185-38E 1200' FSL & 2600' FWL	19-18S-38E 1200' FSL & 1300' FWL	19-18S-38E 160' FNL & 1460' FWL	19-18S-38E 2501' FSL & 1410' FWL	19-18S-38E 2495' FNL & 119' FEL	19-18S-38E 1100' FSL & 380' FEL	24-18S-37E 1300' FSL & 2600' FWL	24-18S-37E 10' FNL & 2630' FEL	24-18S-37E 145' FSL & 1435' FEL	24-18S-37E 10' FNL & 1280' FEL	24-18S-37E 2480' FSL & 1280' FEL

XAE8733802 - 0001.0.0

*Calculated

SHELL WESTERN E&P INC.
NORTH HOBBS (GRAYBURG/SAN ANDRES) UNIT
N.M.O.C.D. ORDER NO. R-6199
SUPPLEMENT TO DATA PREVIOUSLY FURNISHED - AREA OF REVIEW
WELLS INSIDE UNIT AREA

	ion al	4294'	4264'	4290'		4468'	4268'	4318'	4191'	4095'	4250'
	Completion Interval	4184' - '	4191' - '	4141' - '		4335' - ,	4239' - '	4071' - '	4071' - '	3989' -	4083' - '
	Hole Size	7-7/8"	12-1/4" 7-7/8"	12-1/4" 4 7-7/8"		12-1/4" 4 8-3/4"	12-1/4" 4 7-7/8"	12-1/4" 4 7-7/8"	12-1/4" 7-7/8	12-1/4" 7-7/8"	12-1/4" 7-7/8"
	<u> 10C</u>	Circ ~ 3760'**	Circ 300'**	Circ		Circ Circ	Circ ✓ Circ	Circ // 90'**	Circ / 2330'**	Circ* 575'**	Circ Surf**
Detail	Amt. of Cmt	850 sx 1000 sx	675 sx 740 sx	725 sx 1000 sx		675 sx 1050 sx	850 sx 1050 sx	785 sx 900 sx	750 sx 750 sx	625 sx 700 sx	620 sx 875 sx
Casing	Setting Depth	1600' 4510'	1525' 4384'	1520' 4370'		1655' 4569'	1600' 4503'	1595' 4512'	1511' 4368'	1542' 4369'	1520' 4375'
	Wt.	24# 14#	24, 32# 14#	24, 32# 14#		36# 23#	24# 14#	24# 14#	24# 14#	24, 32# 14#	24, 32# 14#
	Size	8-5/8" 5-1/2"	8-5/8" 5-1/2"	8-5/8" 5-1/2"		9-5/8"	8-5/8" 5-1/2"	8-5/8" 5-1/2"	8-5/8" 5-1/2"	8-5/8" 5-1/2"	8-5/8" 5-1/2"
	Well Type	Injector	011	Injector		011	Injector	Injector	011	011	Injector
					MD QVT	PBTD					
	TD PBTD	4510' 4374'	4370'	4370' 4311'	4570'	4530	4510' 4474'	4512'	4370' 4195'	4370' 4190'	4375'
	Date <u>Drilled</u>	10/80	11/84	11/84		7/87	2/81	8/80	12/83	1/85	11/84
	Elev.	3660' GL	3659' GL	3650' GL		3641' GL	3635' GL	3641' GL	3640' GL	3648' GL	3649' GL
	Well No.	422	122	232		342	422	132	242	323	342
Location	S-T-R Footage	25-18S-37E 1550' FNL & 1300' FEL	28-18S-38E 1579' FNL & 211' FWL	28-18S-38E 2300' FSL & 1350' FWL	Surf 33-185-38E 202' FNL & 1764' FEL BHL 28-185-38E	1057' FSL & 1666' FEL	28-18S-38E 2199' FNL & 772' FEL	29-18S-38E 1623' FSL & 1218' FWL	29-18S-38E 100' FSL & 1400' FWL	29-18S-38E 2540' FNL & 2500' FEL	29-18S-38E 1230' FSL & 2500' FEL

XAE8733802 - 0002.0.0

*Calculated **CBL

SHELL WESTERN E&P INC.
NORTH HOBBS (GRAYBURG/SAN ANDRES) UNIT
N.M.O.C.D. ORDER NO. R-6199
SUPPLEMENT TO DATA PREVIOUSLY FURNISHED - AREA OF REVIEW
WELLS INSIDE UNIT AREA

	Completion Interval	7' - 4240'	7' - 4285'	3' - 4329'	9' - 4280'	8' - 4310'	8' - 4240'	5' - 4197'	5' - 4333'	7' - 4288'	
	Į į	4117'	4157'	4123'	4139'	4218'	4148'	4165'	4215'	4127	
	Hole Size	12-1/4" 8-3/4"	12-1/4" 7-7/8"	12-1/4" 7-7/8"	12-1/4" 7-7/8"	12-1/4" 7-7/8"	12-1/4" 7-7/8"	12-1/4" 7-7/8"	12-1/4"	72-1/4"	8-3/4"
	<u> 100</u>	Circ Surf**	Circ Surf**	Circ 2609'**	Circ / 2496'**	Circ 2614'**	Circ / 106'**	Circ Circ	Circ	Circ	Circ
Detail	Amt. of Cmt	xs 066	620 sx 990 sx	950 sx 800 sx	650 sx 750 sx	875 sx 1100 sx	620 sx 810 sx	675 sx 775 sx	650 sx	700 sx	800 sx
Casing	Setting Depth	1520' 4369'	1495' 4362'	1570' 4349'	1455' 4394'	1600' 4555'	1507 ' 4383 '	1514' 4368'	1500,	4431 1503'	43691
	Wt.	36# 20#	24, 32# 14#	24# 14#	24# 14#	24# 14#	24, 32# 14#	24, 32# 14#	36#	20# 36#	20# 20#
	Size	9-5/8"	8-5/8" 5-1/2"	8-5/8" 5-1/2"	8-5/8" 5-1/2"	8-5/8" 5-1/2"	8-5/8" 5-1/2"	8-5/8" 5-1/2"	9-5/8"	9-5/8"	2,5
	Well Type	0i1	0;1	Injector	0i1	Injector	0i1	0i1	011	011	- - - -
									MD TVD PBTD		
	TD PBTD	4370' 4323'	4370'	4350' 4334'	4397' 4321'	4555' 4519'	4383 ¹ 4338 ¹	4370' 4325'	4431' 4371' 4381'	4370	4323
	Date <u>Drilled</u>	2/85	1/85	7/80	1/84	12/80	1/85	1/85	5/85	4/85	}
	Elev.	3657' GL	3658' GL	3654' GL	3651' GL	3651' GL	3654' GL	3650' GL	3652' GL	3650' GI	
	Well No.	112	113	222	223	232	233	242	312	332	7
Location	S-T-R Footage	30-18S-38E 200' FNL & 1310' FWL	30-18S-38E 1310' FNL & 195' FWL	30-18S-38E 1470' FNL & 1395' FWL	30-18S-38E 1770' FNL & 2405' FWL	30-18S-38E 1400' FSL & 1370' FWL	30-18S-38E 2455' FSL & 1480' FWL	30-18S-38E 200' FSL & 1400' FWL	Surf 30-18S-38E 530' FNL & 1448' FEL BHL 10' FNL & 1330' FEL	30-185-38E	2470' FSI & 1600' FFI

*Calculated

SHELL WESTERN E&P INC.
NORTH HOBBS (GRAYBURG/SAN ANDRES) UNIT
N.M.O.C.D. ORDER NO. R-6199
SUPPLEMENT TO DATA PREVIOUSLY FURNISHED - AREA OF REVIEW
WELLS INSIDE UNIT AREA

tion	4290'	4265	4266'	4252	4247'	4131'	4281'	4215'	4313'
Completion Interval	4137' -	4124' -	4110' -	4162' -	4094' -	4124' -	4189' -	4105' -	4135' -
Hole Size	12-1/4" 7-7/8"	12-1/4" 7-7/8"	12-1/4" 7-7/8"	12-1/4" 7-7/8"	12-1/4" 7-7/8"	12-1/4" 8-3/4"	12-1/4" 7-7/8"	12-1/4" 8-3/4"	12-1/4" 7-7/8"
100	Surf ✓ Circ	Circ 2500'**	Circ Cric	Circ Circ	Circ / 858'**	Circ Surf**	Circ 2500'**	Circ Circ	Circ 720'**
Detail Amt. of Cmt	710 sx 720 sx	850 sx 1000 sx	620 sx 1050 sx	850 sx 1075 sx	xs 679 xs 007	700 sx 1735 sx	950 sx 1050 sx	625 sx 900 sx	850 sx 680 sx
Casing Setting Depth	1579' 4369'	1524' 4510'	1490' 4370'	1606' 4510'	1513' 4370'	1519' 4369'	1598' 4510'	1510' 4371'	1525' 4460'
Wt.	24, 32# 14#	24# 14#	24, 32# 14#	24# 14#	24, 32# 14#	36# 20#	24# 14#	36# 20#	24# 14#
Size	8-5/8" 5-1/2"	8-5/8" 5-1/2"	8-5/8" 5-1/2"	8-5/8" 5-1/2"	8-5/8" 5-1/2"	9-5/8"	8-5/8" 5-1/2"	9-5/8"	8-5/8" 5-1/2"
Well Type	Injector	Injector	011	Injector	Injector	0i1	Injector	0i1	Injector
TD <u>PBTD</u>	4370' 4328'	4510' 4406'	4370' 4324'	4510' 4420'	4370' 4290'	4370' 4145'	4510' 4452'	4372' 4319'	4460' TVD 4400' PBTD
Date Drilled	12/84	1/81	12/84	11/80	12/84	4/85	11/80	3/85	9/83
Elev.	3648' GL	3651' GL	3650' GL	3646' GL	3648' GL	3645' GL	3641' GL	3636' GL	3627' GL
Well No.	333	422	432	442	443	444	312	422	142
Location S-T-R Footage	30-18S-38E 1400' FSL & 2430' FEL	30-18S-38E 1520' FNL & 1300' FEL	30-18S-38E 2260' FSL & 180' FEL	30-185-38E 1300' FSL & 1050' FEL	30-18S-38E 1300' FSL & 160' FEL	30-185-38E 215' FSL & 1255' FEL	31-185-38E 1262' FNL & 1520' FEL	31-18S-38E 2259' FNL & 600' FEL	Surf 32-18S-38E 610' FSL & 1210' FWL BHL 31' FSL & 1377' FWL

XAE8733802 - 0004.0.0

*Calculated **CBL

SHELL WESTERN E&P INC.
NORTH HOBBS (GRAYBURG/SAN ANDRES) UNIT
N.M.O.C.D. ORDER NO. R-6199
SUPPLEMENT TO DATA PREVIOUSLY FURNISHED - AREA OF REVIEW
WELLS INSIDE UNIT AREA

Location S-T-R Footage	Well No.	Elev.	Date Drilled	TD 0T89	Well Type	Size	Wt.	Casing Setting Depth	Detail Amt. of Cmt	100	Hole Size	Completion Interval
32-18S-38E 1185' FSL & 300' FWL	143	3630' GL	3/85	4383' 4339'	0i1	9-5/8"	36# 20#	1534' 4383'	625 sx 820 sx	Circ Circ	12-1/4" 8-3/4"	4077' - 4181'
32-18S-38E 1720' FNL & 1370' FWL	222	3635' GL	12/80	4510' 4235'	Injector	8-5/8" 5-1/2"	24# 14#	1607' 4510'	800 sx 1075 sx	Circ 724'**	12-1/4" 7-7/8"	4090' - 4218'
32-18S-38E 210' FNL & 1400' FEL	312	3651' GL	11/84	4370' 4223'	0i1	8-5/8" 5-1/2"	24# 14#	1519' 4369'	650 sx 320 sx	Circ Circ	12-1/4" 7-7/8"	4073' - 4206'
32-18S-38E 1370' FNL & 1400' FEL	323	3639' GL	08/6	4400' 4292'	Injector	8-5/8" 5-1/2"	24# 14#	1600' 4400'	1000 sx 920 sx	Circ 3624'**	12-1/4" 7-7/8"	4062' - 4276'
32-18S-38E 1550' FSL & 2350' FEL	332	3626' GL	4/85	4356' 4310'	0i1	9-5/8"	36# 20#	1534' 4356'	600 sx 875 sx	Circ / Circ	12-1/4" 7-7/8"	4046' - 4208'
Surf 32-185-38E 475' FSL & 1437' FEL												
5-19S-38E 5' FNL & 1294' FEL	342	3626' GL	10/83	4430' MD 4377' PBTD	Injector	8-5/8" 5-1/2"	24# 14#	1522' 4380'	700 sx 650 sx	Circ 1000'**	12-1/4" 7-7/8"	4091' - 4283'
32-18S-38E 660' FSL & 1550' FEL	343	3623' GL	28/9	4370' 4226'	0i1	9-5/8"	36# 20#	1498' 4370'	600 sx 1150 sx	Circ /3396'**	12-1/4" 8-3/4"	4141' - 4208'
32-18S-38E 1385' FNL & 110' FEL	422	3642' GL	2/85	4370' 4325'	0i1	9-5/8"	36# 20#	1538' 4369'	575 sx 600 sx	Circ 1470'**	12-1/4" 8-3/4"	4047' - 4220'
33-18S-38E 1250' FSL & 185' FWL	142	3635' GL	12/83	4370' 4301'	0i1	8-5/8" 5-1/2"	24# 14#	1540' 4370'	750 sx 910 sx	Circ / 320'**	12-1/4" 7-7/8"	4067' - 4237'

XAE8733802 - 0005.0.0

*Calculated

SHELL WESTERN E&P INC.
NORTH HOBBS (GRAYBURG/SAN ANDRES) UNIT
N.M.O.C.D. ORDER NO. R-6199
SUPPLEMENT TO DATA PREVIOUSLY FURNISHED - AREA OF REVIEW
WELLS INSIDE UNIT AREA

•	Completion Interval	- 4159'	- 4255'	- 4276'	- 4246'	- 4224'	- 4270'	- 4221'		- 4256'
	Comp	4029'	4027	4054'	4047	4046'	4128'	4003'		4068
ļ,	Hole Size	12-1/4" 7-7/8"	12-1/4" 7-7/8"	12-1/4" 7-7/8"	12-1/4" 7-7/8"	12-1/4" 8-3/4"	12-1/4" 8-3/4"	12-1/4" 8-3/4"	`\	12-1/4" 7-7/8"
	<u> 100</u>	Circ Circ	Circ Circ	Circ 2430'**	Circ Circ	Circ 2450'**	Circ 2625'**	Circ 3010'**	·	Circ 100'**
Deta	Amt. of Cmt	625 sx 1070 sx	675 sx 775 sx	800 sx 1100 sx	750 sx 875 sx	650 sx 1125 sx	650 sx 975 sx	650 sx 925 sx		650 sx 725 sx
Casing	Setting Depth	1520 ¹ 4370 ¹	1551 ' 4370 '	1600' 4400'	1582' 4350'	1503' 4372'	1510'	1517' 4370'		1565' 4380'
	Wt.	24, 32# 14#	24, 32# 14#	24# 14#	24# 14#	36# 20#	36# 20#	36# 20#		24# 14#
	Size	8-5/8" 5-1/2"	8-5/8" 5-1/2"	8-5/8" 5-1/2"	8-5/8" 5-1/2"	9-5/8"	9-5/8"	9-5/8"		8-5/8" 5-1/2"
:	Well Type	Injector	011	Injector	0i1	0i1	011	li0		Injector
							MD TVD PBTD			
;	TD PBTD	4370' 4324'	4370' 4328'	4400' 4322'	4370' 4290'	4373'	4428' 4371' 4379'	4370' 4324'		4380' 4331'
	Date Drilled	12/84	1/85	10/80	12/83	9/82	9/85	6/85		10/83
	Elev.	3643' GL	3645' GL	3646' GL	3639' GL	3633' GL	3641' GL	3636' GL		3625' GL
:	Well No.	212	213	222	233	234	312	323		342
Location	S-T-R Footage	33-18S-38E 205' FNL & 1420' FWL	33-18S-38E 1300' FNL & 2455' FWL	33-18S-38E 1520' FNL & 1470' FWL	33-18S-38E 2380' FSL & 2472' FWL	33-18S-38E 1372' FSL & 2563' FWL	Surf 33-185-38E 151' FNL & 1702' FEL BHL 10' FNL & 1330' FEL	33-18S-38E 2525' FNL & 1453' FEL	Surf 33-185-38E 125' FSL & 2730' FWL RHI	37' FSL & 2699' FWL

XAE8733802 - 0006.0.0

*Calculated	**CBL

SHELL WESTERN E&P INC.
NORTH HOBBS (GRAYBURG/SAN ANDRES) UNIT
N.M.O.C.D. ORDER NO. R-6199
SUPPLEMENT TO DATA PREVIOUSLY FURNISHED - AREA OF REVIEW
WELLS INSIDE UNIT AREA

	Completion Interval	- 4305'	- 4313'	- 4297	- 4373
	Comp	4171'	4144'	4107'	4131'
	Hole <u>Size</u>	12-1/4" 8-3/4"	12-1/4"	12-1/4" 7-7/8"	/ 12-1/4" 7-7/8"
	<u> </u>	Circ Circ	Circ	Circ 1600'**	Circ 830'**
Detai	Amt. of Cmt	650 sx 1250 sx	650 sx 750 sx	750 sx 950 sx	750 sx 825 sx
Casing	Setting Depth	36# 1542' 4436'	1660'	1615'	1618'
	Wt.	32.3, 23#	24# 14#	24# 14#	24# 14#
	Size	9-5/8"	8-5/8" 5-1/2"	8-5/8" 5-1/2"	8-5/8" 5-1/2"
	Well Type	011	Injector	Injector	011
		MD TVD PBTD			TMD TVD PBTD
	TD PBTD	4436' 4324' 4328'	4476'	4445'	4390' 4370' 4386'
	Date Drilled	28/9	11/83	11/83	1/84
	Elev.	3636' GL	3636' GL	3630' GL	3605' GL
		36.	36.	36.	36
	Well No.	412	422	432	342
Location	S-T-R Footage	Surf 33-185-38E 1973' FNL & 530' FEL BHL 1175' FNL & 850' FEL	Surf 33-18S-38E 2181' FNL & 498' FEL BHL 34-18S-38E 2645' FNL & 22' FEL	Surf 33-18S-38E 1842' FSL & 1029' FEL BHL 1371' FSL & 1390' FEL	Surf 34-185-38E 305' FSL & 1650' FEL BHL 450' FSL & 1540' FEL

Calculated *CBL ****Estimated

SHELL WESTERN E&P INC. NORTH HOBBS (GRAYBURG/SAN ANDRES) UNIT WELL DATA FOR 16 CONVERSIONS

Completion Data	*Denotes Open Interval	4146' - 4188'* 4213' - 4244' sqzd w/42 sx Cls "C" CIBP @ 4100' capped w/35' cmt	4184' - 4232'* 4064' - 4105' sqzd w/150 sx C1s "C"	4227' - 4256'* 4222' - 4238' sqzd w/285 sx cmt 4266' - 4276' sqzd OH w/55 sx cmt	4112' - 4114'*	4181' - 4295'* 4104' - 4123' sqzd w/50 sx Cls "C" cmt 4138' - 4161' sqzd w/150 sx Cls "C" cmt	4156' - 4271'* 4070' - 4080' sqzd w/100 sx Cls "C" cmt 4141' - 4146' sqzd w/275 sx Cls "C" cmt
ŗ	Hole Size	12-1/4" 7-7/8"	12-1/4" 8-3/4"	12-1/4" 7-7/8"	12-1/4" 8-3/4"	12-1/4" 7-7/8"	12-1/4" 8-3/4"
6	200	Cinc 1508'***	Circ	Circ 4226'***	Circ Circ	Circ 1520'***	Circ Circ
etail	Sx of Cmt	390 800	625 955	300	600 850	750 875	650 926
Casing Detail	Setting Depth	1508' 4370'	1510' 4368'	292' 4266'	1500' 4368'	1520' 4400'	1523' 4384'
	Wt.	24# 14#	36# 20#	24# 15.5#	36# 20#	24# 14#	36# 20#
	Size	8-5/8" 5-1/2"	9-5/8"	8-5/8" 5-1/2"	9-5/8" 7"	8-5/8" 5-1/2"	9-5/8"
TD	PBTD	4370' 4065'	4370' 4316'	4276' 4269'	4370' 4321'	4400' 4340'	4384' 4319'
Well	No.	442	332	131	212	413	442
•	Section	13	19	20)	24	24	24

Calculated *CBL ****Estimated

SHELL WESTERN E&P INC. NORTH HOBBS (GRAYBURG/SAN ANDRES) UNIT WELL DATA FOR 16 CONVERSIONS

Completion Data	*Denotes Open Interval	4200' - 4347'*	4090' - 4103'* 4103' - 4264' 0H*	4157' - 4306'* 4132' - 4136' sqzd w/50 sx Cls "C" cmt	4163' - 4252'*	4126' - 4210'* 4031' - 4036' sqzd w/250 sx C1s "C" cmt 4065' - 4100' sqzd w/125 sx C1s "C" cmt	4161' - 4224'*	4096' - 4175'* 3354' - 4213' sqzd OH w/200 sx Cls "C" cmt
	Hole Size	12-1/4" 8-3/4"	NA NA	12-1/4" 7-7/8"	12-1/4" 7-7/8"	12-1/4" 8-3/4"	17" 11-3/4" 9-3/4"	18" 12-1/4"**** 8-3/4"***
	<u> </u>	Circ Circ	Circ 2820'***	Circ 230'***	Circ Circ	Circ	33 - ** 792 - ** 2448 - ** 4229 - **	Circ** 1741'** 3086'*** 3841'**
etail	Sx of Cmt	650 1005	150 500	500 975	620 850	575 1100	150 200 250 100	200 350 200 50
Casing Detail	Setting Depth	1509' 4470'	235' 4103'	1510' 4370'	1520' 4384'	1536' 4369'	251' 1526' 3980' 3880' - 4229'	238' 2757' 3954' 3841' - 4273'
	wt.	36# 20#	55# 22#	24, 32# 14#	24# 14#	36# 20#	50# 36# 24# 15.5#	70# 36# 24# 15#
	Size	9-5/8"	12-1/2" 7"	8-5/8" 5-1/2"	8-5/8" 5-1/2"	9-5/8"	12-1/2" 9-5/8" 7" 5-1/2" Lnr	15-1/2" 9-5/8" 7" 5" Lnr
TD	PBTD	4475' MD 4377' TVD 4423' PBTD	4264'	4370' 4326'	4384' 4340'	4370'	4229'	4276' 4227'
Well	No.	242	311	122	322	442	341	112
	Section	28	28	29	29	29	31	32

Calculated *CBL ****Estimated

SHELL WESTERN E&P INC. NORTH HOBBS (GRAYBURG/SAN ANDRES) UNIT WELL DATA FOR 16 CONVERSIONS

Completion Data	*Denotes Open Interval	4079' - 4201'* Perfs 4214' - 4251' isolated by CIBP @ 4210'	4051' - 4235'*	4042' - 4228'* 4086' - 4097' sqzd w/125 sx Cls "C" smt
	Hole Size	12-1/4" 8-3/4"	12-1/4" 8-3/4"	/ 18" 12-1/4" 8-3/4" 6-1/4"
	•)	\	* * * * * *
	<u> 10</u> C	Circ	Circ	Circ 990'** 2860'*** 3871'***
ng Detail	Sx of Cmt	600 975	580 925	250 600 310 50
Casing D	Setting Depth	1500' 4369'	1508' 4379'	183' 2732' 3946' 3860' - 4235'
	Wt.	36# 20#	36# 20#	70# 40# 24# 18#
	Size	9-5/8"	9-5/8"	15-1/2" 9-5/8" 7" 5" Lnr
TD	PBTD	4370'	4380' 4328'	4259'
Well	No.	223	423	231
	Section	32	32	33

SHELL WESTERN E&P INC.	NORTH HOBBS (GI	RAYBURG/SAN ANDRES UNI	T)
442 1200' FSL & 220' FEL WELL NO. FOOTAGE LOCATION		18S	37E
WELL NO. FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGE
Schematic		Tabular Data (PROVII	DED ELSEWHERE)
$\ \mathbf{n} \cdot \mathbf{n} \ $	Surface Casing		
	Size	" Cemented wit	hsx.
133/8"	TOC	feet determined by	
@ 40'	Hole size		
	Intermediate Casi	ng	
	Size	" Cemented with	າsx
3 556 -	TOC	feet determined by	
@1508	Hole size		
	Long string		
	Size	" Cemented with	ר
		feet determined by	
2-7/8" OD Duoline Tbg	Injection interva		
	(perforated or ope	eet to en-hole, indicate which.	feet
5/2" 70'-424' PBTD 4330' 5/2" 704370' 4370	es perfs to be opened 1293'		
Tubing sizelin	ed with	(material)	set in a
	•	ker at	feet
(brand and model) (or describe any other casing-tubi	ng seal).		
1. Name of the injection formation	n		, · · •
2. Name of Field or Pool (if appl			
3. Is this a new well drilled for			
If no, for what purpose was th	•	•	
4. Has the well ever been perfora and give plugging detail (sack	ted in any other zon s of cement or bridg	c(s)? List all such per e plug(s) used)	rforated interval
	······································		
5. Give the depth to and name of	any overlying and/or	underlying oil or gas :	zones (pools) in
this area.			

SHEL	L WESTERN E&P INC.	NORTH HOBBS (GRAY	BURG/SAN ANDRES UNI	Γ)
_		_	100	205
WEL	32 1430' FSL & 2535' FEL NO. FOOTAGE LOCATION	SECTION	18S TOWNSHIP	RANGE
<u> </u>	······································			
•	Cabanatia		Takata Baka (BBOUTE	ירה בו כבושיבהביו.
	Schematic		Tabular Data (PROVII	DED ELSEWHERE)
		Surface Casing		•
			_" Cemented with	
	133/6"	•	_ feet determined by	
	- C40'	Hole size		
	•	Intermediate Casing		
		Size	_" Cemented with	5 x.
4	95/q"	тос	_ feet determined by	
	e 1510	Hole size		
]		Long string		
1			II Camanhad (1861	
	-		_" Cemented with	
			_ feet determined by	
	2-7/8" OD Duoline tbg	Hole size		÷
	4004	Total depth		
	7 4065	Injection interval		
	401	feet (perforated or open-	to	feet
	4103	(perforaced or open-	noie, indicate which;	
777	#4196 #424-32 PBTD A316'			
TD 4.	יסרי	lined with		set in a
100	ing size	(ma		
	(brand and model)	packer	at	feet
(or	describe any other casing-t	ubing seal).		
Oth	er Data			
	Name of the injection forma	tion		· •
	Name of Field or Pool (if a			
•	Is this a new well drilled	·	<u></u>	
	If no, for what purpose was	,		
4.	Has the well ever been perf and give plugging detail (s	Torated in any other zone(s acks of cement or bridge p)? List all such per lug(s) used)	rforated intervals
5.	Give the depth to and name this area.		derlying oil or gas :	zones (pools) in

			LEASE		
131 WELL	1650' FS NO. FOOT	L & 330' F	WL 20 IN SECTION	18S TOWNSHIP	38E RANGE
	Schematic		7 /	Tabular Data (PROV	IDED ELSEWHERE
	,		Surface Casing		
	•		Size	" Cemented wi	th
	-		TOC	feet determined b	у
			Hole size		
	•		<u>Intermediate C</u>	asing	•
	•			" Cemented wi	th
	8 5/2 ~			feet determined b	
110	e 192'				
	•		Long string		
	•			" Cemented wi	th
			TOC	feet determined b	у
	•				
		1- 1	Injection inte	rval	
4	278" OD Duoline -	1 bg		feet to open-hole, indicate whic	feet
			(perforated or	open-hole, indicate whic	h)
± 500	4247-56 5 1/2" . @ 42166' 269'				
			lined with	(material)	set in
Tubi	ng size				
Tubi				packer at	feet
	(brand and	model)		packer at	feet
	(brand and	model)		packer at	feet
(or	(brand and describe any o er Data	model) ther casing	-tubing seal).	packer at	
(or Othe	(brand and describe any o e <u>r Data</u> Name of the in	model) ther casing	-tubing seal).		
(or Other)	(brand and describe any o er Data Name of the in Name of Field	model) ther casing jection for or Pool (if	-tubing seal).		
(or Other).	(brand and describe any or Data Name of the in Name of Field Is this a new	model) ther casing jection for or Pool (if	rmation applicable)		
(or Other).	(brand and describe any over Data Name of the in Name of Field Is this a new If no, for wha	model) ther casing ejection for or Pool (if well drille at purpose were	rmation fapplicable) ed for injection? was the well originally	Yes /	erforated inter

OPERATOR	ERN E&P INC.	LEASE	RAYBURG/SAN ANDRES UNI	!1
WELL NO.	1263' FNL & 2605' FW FOOTAGE LOCATION	IL 24 SECTION	18S TOWNSHIP	37E RANGE
Sche	ematic		Tabular Data (PROVI	DED ELSEWHERE)
		Surface Casing		
	12.3/.//	Size	" Cemented wit	hs
4	13 %" @ 40'		feet determined by	
		Hole size		
		Intermediate Casi	na	
			" Cemented wit	h
╸┛┤╎╎┡	95/8" @ 1500'		feet determined by	
			reet determined by	
		Long string		
			" Cemented wit	
			feet determined by	
		k.	· · · · · · · · · · · · · · · · · · ·	
		Total depth		
	•	Injection interva	1	
	07/400 0 lb TI	7	eet to en-hole, indicate which	feet
	27/8" OD Duoline Tbg	(perforated or op	en-hole, indicate which	
			,	
	Guiberson Uni-PKr VI@±	4070'		
1 1 1	SAI			
	4112' - 4114'	•	•	
77.77	PBTD @ 4321'	·		
	<u>7"</u> <u>2</u> 4368'			
TD 4370'				
Tubing siz	e]	lined with	(material)	set in a
		, pac	ker at	feet
•	rand and model)	1		
(or descri	be any other casing-to	intud sesti.		
Other Data	•			
1. Name o	f the injection formal			
1. Name o	f the injection formal frield or Pool (if ap	oplicable)		
 Name o Name o Is thing 	f the injection formal f Field or Pool (if ap s a new well drilled	oplicable) for injection? / / Ye	es /7 No	
 Name o Name o Is thing 	f the injection formal f Field or Pool (if ap s a new well drilled	oplicable)	es /7 No	
 Name o Name o Is thi If no, 	f the injection formal f Field or Pool (if and s a new well drilled for what purpose was	oplicable) for injection? / // Ye the well originally do	es No rilled?	
1. Name o 2. Name o 3. Is thi If no,	f the injection formal f Field or Pool (if ap s a new well drilled for what purpose was	oplicable) for injection? / Ye the well originally do orated in any other zon	es / No rilled? nc(s)? List all such pe	erforated inter
1. Name o 2. Name o 3. Is thi If no,	f the injection formal f Field or Pool (if ap s a new well drilled for what purpose was	oplicable) for injection? / // Ye the well originally do	es / No rilled? nc(s)? List all such pe	erforated inter
1. Name o 2. Name o 3. Is thi If no,	f the injection formal f Field or Pool (if ap s a new well drilled for what purpose was	oplicable) for injection? / Ye the well originally do orated in any other zon	es / No rilled? nc(s)? List all such pe	erforated inter

413 12 WELL NO.		LEASE		
	200' FNL & 206' FE	1. 24	18S FOWNSHIP	37E RANGE
	TOUTAGE EUCHTION	Section	LOMAZULI	RANGE
			,	
Schem	atic		Tabular Data (PRO)	/IDED ELSEWHERE)
.		Surface Casing		
4 	16" Ø 40'		" Cemented w	
	9 40		feet determined	by
		Intermediate Casi		
	85/6"		" Cemented w	
	@ 1520'		feet determined	by
		Hole size		
		Long string		
	•	Size	Cemented w	ith
		TOC	feet determined	by
		Hole size		
		Total depth		·
		Injection interva	1	
			eet to en-hole, indicate which	feet
	278" OD Duoline Tog	(perforated or op	en-hole, indicate whi	ch)
	.78 00 2			
X X S	ulberson Uni-PKr VI@ t	4090'		
. 1	104' - 4161'			
1	SA III	•		
* • • • • • • • • • • • • • • • • • • •	1181' - 4295'			
	BTD @ 4340			
	5½" 2 4400'			
TD 4400'				
		•		
Tubing size		lined with	·	set in
			(material) ker at	feet
(bre	ind and model)			
(or describe	any other casing-	tubing seal).		
Other Data	:			
1. Name of	the injection form	ation		
2. Name of	Field or Pool (if	applicable)		·
3. Is this	a new well drilled	for injection? /7 Ye	.s. /_7 No	
4 *	for what purpose wa	s the well originally dr	illed?	
If no,		4		·
If no,		forsted in any other zon	o(c)? list all such	nonforeted ichem
4. Has the	well ever been per	inraced the any delier son	in/al: clas all adeu	beriorated Inter
4. Has the	well ever been per e plugging detail (sacks of cement or bridg	de bind(s) nseq)	percorated inter
4. Has the	well ever been per e plugging detail (sacks of cement or bridg	ge plug(s) used)	periorated Inter
4. Has the and giv	e plugging detail (sacks of cement or bridg	ge plug(s) used)	
4. Has the and giv	e plugging detail (sacks of cement or bridg	ge plug(s) used)	

SHELL WEST	TERN E&P INC.	NORTH HOBBS (G	RAYBURG/SAN ANDRES UNIT)
	1260' ESI & 200' EEI		100	27E
WELL NO.	1260' FSL & 200' FEL FOOTAGE LOCATION	SECTION	185 TOWNSTILLY	RANGE
	·			
. Set	nematic		<u> Tabular Data</u> (PROVIDI	ED ELSEWHERE)
]]	Surface Casing		
		Size	" Cemented with	. 9
4	13 %" @ 40'		feet determined by	
		noie size		
		Intermediate Cas.	ing	
	95%"	Size	Cemented with	·
	@ 1523'		feet determined by	
		Long string		
		Size	" Cemented with	
		TOC	feet determined by	
	22%"OD Duoline Tbg			•
		, ocal depen		
		Injection interva	al	
Z Z	Guiberson Uni-PKr VI @ ±4060'	(perforated or of	feet to pen-hole, indicate which)	feet
	4070' - 4080'			
	SAII		•	
	4141' - 4146'			
.	4156' - 4185'			
	5A TT U			
=	E4197' - 4271'			
777	PBTD @ 4319'			
	7" @4384'			
		,		
		J J & C.		set in a
Tubing si	zeline	G WICH	(meterial)	360 111 4
		pa	cker at	feet
*	brand and model) lbe any other casing-tubin	n seal).		
		3/-		
Other Dat	••••			
1. Name	of the injection formation	`		
2. Name	of Field or Pool (if appli	cable)		
3. Is th	is a new well drilled for	injection? / Y	es <u>/</u> 7 No	
If no	, for what purpose was the	well originally d	rilled?	
2		,,		
		ad in any other to	no(s)? List oll such per	fanatad iahari
4. Has t	he well ever been perforat give plugging detail (sacks	of cement or brid	de bind(s) name)	. J. G. CO. LINCOLV
		• .		
				
	n Arthur e			
	the depth to and name of a	my overtying and/o	r oncertaind off or des 5	olisa (boots) 'T
				· · · · · · · · · · · · · · · · · · ·

(SURFACE/BOTTOMHOLE) Schematic Surface Casing Size "Cemented with TOC feet determined by Hole size Long string Size "Cemented with TOC feet determined by Hole size Long string Size "Cemented with TOC feet determined by Hole size Long string Size "Cemented with TOC feet determined by Hole size Total depth Injection interval	·
Schemetic Tabular Data PROVIDED Schemetic Surface Casing Camented with 133% Size Casing Cemented with 100 feet determined by Hole size Casing Size Casing Formal of the size Casi	38E
Surface Casing Size "Cemented with DOC feet determined by Hole size Intermediate Casing Size "Cemented with DOC feet determined by Hole size Long string Size "Cemented with DOC feet determined by Hole size "Cemented with TOC feet determined by Hole size "Cemented with TOC feet determined by Hole size Total depth Injection interval feet to (perforated or open-hole, indicate which) SAIL IIIU	RANGE
Size	ELSEWHERE)
TOC feet determined by Hole size	• .
Rest determined by Hole size	5 X
Intermediate Casing	·
Size	•
TOC feet determined by Hole size Long string Size " Cemented with TOC feet determined by Hole size Total depth Injection interval feet to (perforated or open-hole, indicate which) SAI # IIIU	
Feet determined by Hole size Long string Cemented with TOC feet determined by Hole size Total depth Injection interval Feet to (perforated or open-hole, indicate which) SAI & IIU	
Long string Size " Cemented with	
Size" Cemented with	
Hole size Total depth Injection interval feet to (perforated or open-hole, indicate which) SAI I IIU	
Hole size Total depth Injection interval Feet to (perforated or open-hole, indicate which) SAIL & IIIU	6
Injection interval feet to (perforated or open-hole, indicate which) Guiberson Uni-PKr VI @ ±4160' SA IL & III U	
Injection interval feet to (perforated or open-hole, indicate which) Guiberson Uni-PKr VI @ ±4160' SA IL & III U	
Guiberson Uni-PKr VI @ ±4160' SA IL & III U	•
SAIL IIU	
SAI & III U	feet
SAIL \$ III U	
SAII \$ III U	
SA IL & III U	
	,
4470′	
	·
Tubing sizelined with(material)	set in a
(material) packer at	feet
(brand and model)	
(or describe any other casing-tubing seal).	
Other Data	1
1. Name of the injection formation	
2. Name of Field or Pool (if applicable) 3. Is this a new well drilled for injection? /7 Yes /7 No	
If no, for what purpose was the well originally drilled?	······································
4. Has the well ever been perforated in any other zonc(s)? List all such perforance and give plugging detail (sacks of cement or bridge plug(s) used)	rated interva
5. Give the depth to and name of any overlying and/or underlying oil or gas zon	ies (pools) ir
this area.	· · · · · · · · · · · · · · · · · · ·

311	1315' FNL & 2290' FEL	. 28	18\$	38E
WELL NO.		SECTION	TOSHIP	RANGE
<u>Sc</u>	chematic		Tabular Data (PROVID	ED ELSEWHERE)
		Surface Casing	÷	
	121/2"	Size	" Cemented with	
	@ 235'	TOC	feet determined by	
		Hole size	 	
		Intermediate Casi	ng	
		Size	" Cemented with	·
			feet determined by	
		Hole size	•	
		Long string		
			ll Composited within	
			" Cemented with	
			feet determined by	
		local depth		
		Injection interva	1	
		(perforated or on	eet to en-hole, indicate which)	feet
		(portological or op	on noic, indidate angen,	
	10	·		
	127/8" OD Duoline Tbg	·		
	Guiberson Uni-Pkr VI @ ±4050'			•
	GUI			
'	+ 4090' - 4103'			
.	7"4103'		•	
{				•
<u> </u>				
TD 426	4'			
Tubing s	izelin	ed with	(material)	set in
	, , , , , , , , , , , , , , , , , , , ,	pac	ker at	feet
	(brand and model) ribe any other casing-tubi	no seal).		
Other Da		,		
The second second				
•	of the injection formatio			
• • •	of Field or Pool (if appl		,	
	his a new well drilled for	•	•	
Ifn	o, for what purpose was th	e well originally di	rilled?	
				
A 11	the well ever been perforagive plugging detail (sack	ited in any other zon so of cement or bridg	nc(s)? List all such per ge plug(s) used)	rforated inter
4. nas and		•		
4. has				
4. has		· ·		
and		any overlying and/a	r underlying oil on sec	ronge (poots)
and 5. Give	e the depth to and name of	any overlying and/o	r underlying oil or gas a	zones (pools)
and 5. Give	e the depth to and name of	any overlying and/or	r underlying oil or gas a	zones (pools)

OPERATOR	STERN E&P INC.	NORTH HOBBS (GRAYB	URG/SAN ANDRES UNIT)
122 WELL NO.	1600' FNL & 180' FWL FOOTAGE LOCATION	29 SECTION	T18S TOWNSHIP	R38E RANGE
	ichematic	<u>I</u>	abular Data (PROVID	ED ELSEWHERE)
	\prod	Surface Casing		
	133/8"	Size	" Cemented with	8
!	@ 40'	TOC	feet determined by	
		Hole size	•	
		Intermediate Casing		
	85%"	Size	" Cemented with	
_	@ 1510'	TOC	feet determined by	
		Hole size		
		Long string		
		Size	" Cemented with	
		TOC	feet determined by	
		Hole size		
	27/8" OD Duoline Tbg	Total depth		
		Injection interval		
		feet	to	feet
		(perforated or open-h	ole, indicate which)	•
\mathbf{z}	Suiberson Uni-PKr VI @ ±4110'			
	SA II			
	₹ 4132' - 4136' ₹ 4157' - 4183'			
	SA III L			
	1 4195' - 4306'			
	5½" @ 4370'			
- 	<u></u>			
		•		
	. •			
Tubing s	sizelin	ed with		set in a
Tubing s	sizelin	(mat	erial)	
	(brand and model)	(mat	erial) at	
(or desc	(brand and model) cribe any other casing-tubi	(mat		
(or desc	(brand and model) cribe any other casing-tubi ata	packer , ng seal).	at	
(or desc Other Da 1. Name	(brand and model) cribe any other casing-tubi ata e of the injection formatio	mate packer ng seal).	at	
(or desc Other Da 1. Name 2. Name	(brand and model) cribe any other casing-tubi ata e of the injection formatio e of Field or Pool (if appl	(mater packer ng seal).	at	
(or desc Other Da 1. Name 2. Name 3. Is	(brand and model) cribe any other casing-tubi ata e of the injection formatio e of Field or Pool (if appl this a new well drilled for	(mate packer packer ng seal). no icable) r injection? /// Yes		
(or desc Other Da 1. Name 2. Name 3. Is	(brand and model) cribe any other casing-tubi ata e of the injection formatio e of Field or Pool (if appl	(mate packer packer ng seal). no icable) r injection? /// Yes		
(or desc Other Da 1. Name 2. Name 3. Is	(brand and model) cribe any other casing-tubi ata e of the injection formatio e of Field or Pool (if appl this a new well drilled for no, for what purpose was th	(mate packer packer ng seal). In		feet
(or desc Other Da 1. Name 2. Name 3. Is If	(brand and model) cribe any other casing-tubi ata e of the injection formatio e of Field or Pool (if appl this a new well drilled for	(mat packer ng seal). in iicable) r injection? / Yes ne well originally drille	/_7 No ed?	feet
(or desc Other Da 1. Name 2. Name 3. Is If	(brand and model) cribe any other casing-tubi ata e of the injection formatio e of Field or Pool (if appl this a new well drilled for no, for what purpose was th	(mat packer ng seal). in iicable) r injection? / Yes ne well originally drille	/_7 No ed?	feet
(or desc Other Da 1. Name 2. Name 3. Is If	(brand and model) cribe any other casing-tubi ata e of the injection formatio e of Field or Pool (if appl this a new well drilled for no, for what purpose was th	(mat packer ng seal). in iicable) r injection? / Yes ne well originally drille	/_7 No ed?	feet
Other Da 1. Name 2. Name 3. Is If	(brand and model) cribe any other casing-tubi ata e of the injection formatio e of Field or Pool (if appl this a new well drilled for no, for what purpose was th the well ever been perfora give plugging detail (sack	(mater packer packer ng seal). In	/_7 No ed? ()? List all such per lug(s) used)	feet
Other Da 1. Name 2. Name 3. Is If	(brand and model) cribe any other casing-tubi ata e of the injection formatio e of Field or Pool (if appl this a new well drilled for no, for what purpose was th the well ever been perfora give plugging detail (sack	(mater packer packer ng seal). In	/_7 No ed? ()? List all such per lug(s) used)	feet
Other Da 1. Name 2. Name 3. Is If	(brand and model) cribe any other casing-tubi ata e of the injection formatio e of Field or Pool (if appl this a new well drilled for no, for what purpose was th the well ever been perfora give plugging detail (sack	(mater packer packer ng seal). In	/_7 No ed? ()? List all such per lug(s) used)	feet

		LEASE .		
322 IELL NO.	1430' FNL & 2350' FEL FOOTAGE LOCATION	29 SECTION	18S TOWNSHIP	38E RANGE
Sc	hematic	et de la constituir de la companya d	<u> Tabular Data</u> (PROVIDE	ED ELSEWHERE)
]	Surface Casing		
	133/8"		" Cemented with	
	@ 40'		feet determined by	
				•
		Intermediate Casin		
┛┤┤┤	85/8" @ 1520'		" Cemented with	
	@ 1520		feet determined by _	
		<u>Long string</u> Size	Cemented with	
			feet determined by	
				. · .
		Injection interva		
		(perforated or ope	eet to en-hole, indicate which)	_ feet
	2 7/8" OD Duoline Tbg			
	•			
X X	Guiberson Uni-PKr VI @ ±4120) [']		
	SAILMU			
·	‡ 4163' - 4 252'	•		
·] =	‡			
=				
=				
=======================================	5½" 64394'			
= = = = = = = = = = = = = = = = = = = =	5½" © 4384'			
=	5½" © 4384'			
Tubing si	<u> @</u> 4384	ned with		set in
Tubing si	<u> @</u> 4384		(material) ker at	
	zelin	рас		
(or descr	zelincelin	рас		
(or descr Other Dat	zelingle to the line and model) libe any other casing-tub	pacing seal).	ker at	
(or descr Other Dat	zelingle	pacing seal).		
(or descr Other Dat 1. Name 2. Name	zelingle to the line and model) libe any other casing-tub	pacing seal). on licable)	ker at	
(or descr Other Dat 1. Name 2. Name 3. Is th	zeline brand and model) libe any other casing-tub la : of the injection formation field or Pool (if app	pacing seal). on licable) r injection? /_7 Ye	ker atsss	
(or descr Other Dat 1. Name 2. Name 3. Is th If no	ze line brand and model) libe any other casing-tub la of the injection formati of Field or Pool (if app	pacing seal). on licable) r injection? / 7 Ye he well originally dr	s /7 No illed? c(s)? List all such per	feet
(or descr Other Dat 1. Name 2. Name 3. Is th If no	zeline brand and model) libe any other casing-tub a : of the injection formati of Field or Pool (if appoints a new well drilled for pool (if appoints a new well a new pool (if appoints a new po	pacing seal). on licable) r injection? / 7 Ye he well originally dr	s /7 No illed? c(s)? List all such per	feet
(or descr Other Dat 1. Name 2. Name 3. Is th If no 4. Has	zeline brand and model) libe any other casing-tub last of the injection formati of Field or Pool (if appoints a new well drilled for pool for what purpose was to the well ever been perforgive plugging detail (sac	pacing seal). on licable) r injection? ////////////////////////////////////	s / No illed? c(s)? List all such per e plug(s) used)	feet

SHELL WESTE	RN E&P INC.	NORTH HOBBS (G	RAYBURG/SAN ANDRES UNIT	.)
442	1230' FSL & 220' FEL FOOTAGE LOCATION		18S TOWNSHIP	38E RANGE
Schei	matic		Tabular Data (PROVID	ED ELSEWHERE)
		Surface Casing		
			" Cemented with	
			feet determined by	
13-3/	2	Hole size		
@ 40)	Intermediate Casi	ող	
	•	Size	" Cemented with	
95/3		TOC	feet determined by	
<u> e 1536</u>	2_	Hole size		
		Long string		
			" Cemented with	
276" 01	D Duoline Tbg			
1	· Daoine 109		feet determined by	
SAT				
+ 4031		lotal depth		
1 7 36	n Uni-PKr VI @ ± 4050'	Injection interva	1	
4065 4100 SAHU 4126 4126 4126 74370 7436				
Tubing size	line	d with	(material)	set in a
			ker at	feet
	and and model) e any other casing-tubin	g seal).		
Other Data	•			
	the injection formation			
	Field or Pool (if appli			
•	a new well drilled for			
	for what purpose was the		,	······
4. Has the	well ever been perforat e plugging detail (sacks	ed in any other zon of cement or bridg	oc(s)? List all such per le plug(s) used)	forated interv
5. Give th	ne depth to and name of a	nny overlying and/or		ones (pools)
		 		

		LEASE	BS (GRAYBURG/SAN ANI	
341	1315' FSL & 1325	5' FEL 31	185	
TELL NO.	FOOTAGE LOCATI	ON SECTI	ON TOWNS	IIIP RANGE
Sche	ematic		Tahular Data	(PROVIDED ELSEWHERE)
		Surface Casi		(NOVIDED LESEMIERE)
				nted with
	12½" @ 251'			mined by
	@ 231			
				
		Intermediate		
┙ ┃ ┃ ┃ ┃	95/8"			nted with
	@ 1526'			mined by
		Hole size _		
		Long string		
		Size	" Ceme	nted with
		TOC	feet deter	mined by
		Hole size _		
				•
		Injection in	terval	
		Cherforated	feet to or open-hole, indica	feet
		· ·	or open-nois, indica	te mileny
1	-Z1/8" OD Duoline T	bg		
		T = 1 000 m		
_	Guiberson Uni-PKr V.	T & 72890		
11 11	TOL @ 3880' @"3980'			
	@ 348C			
	41/11 40241			
F.	4161' - 4224'			•
	5½" Lnr @ 4229'			
TD 4229'	(TEE !		•	
Tubing siz	e	lined with	(material)	set in a
			packer at	feet
	rand and model)	na hubina annl\		······································
	be any other casir	· · · · · · · · · · · · · · · · · · ·		
Other Data	•			
		ormation		
.*		if applicable)		
3. Is thi	•	led for injection? /	,	
	for what purpose	was the well original	lly drilled?	
If no,	<u> </u>		er zono(c)? list oli	such perforated inter-
4. Has th	e well ever been	perforated in any other	baldas -1. / '	aden beriotated Tilter
4. Has th	e well ever been ; ve plugging detai	perforated in any other l (sacks of cement or	bridge plug(s) used)	Sacri periorated inter
4. Has th	e well ever been ; ve plugging detai	perforated in any oth 1 (sacks of cement or •	bridge plug(s) used)	Sacri periorated Anter

SHELL WESTERN E&P INC.	NORTH HOBBS (GI	RAYBURG/SAN ANDRES UNI	Γ)
112 1370' FNL & 330' FWL WELL NO. FOOTAGE LOCATION		18S TOWNSHIP	38E RANGE
Schematic 15 1/2* 2 238' 9 5/8* 2 2757' 27/8" OD Duoline Tbg	Hole size Intermediate Casic Size TOC Hole size Long string Size TOC Hole size	Tabular Data (PROVIC " Cemented with feet determined by " Cemented with feet determined by " Cemented with feet determined by	gx. sx.
Guiberson Uni-PKr VI @ ± 3810' fol 384 1	Injection interva	eet to en-hole, indicate which)	_ feet
Tubing size line		(material) ker at	set in a
(brand and model) (or describe any other casing-tubin Other Data 1. Name of the injection formation 2. Name of Field or Pool (if appli 3. Is this a new well drilled for If no, for what purpose was the 4. Has the well ever been perforate and give plugging detail (sacks	cable) injection? /_7 Ye well originally dr	illed?c(s)? List all such per	forated intervals
5. Give the depth to and name of a this area.			

223 2630' FNL & 1420' FWL 32 18S 36E WILL NO. FROM THE LUCATION SCRITTON TOWNSHIP NAMEC Schematic Isobular Data (PROVIDED ELSEWHERE) Surface Casing Size " Cemented with or 10C feet determined by	SHELL WESTERN E&P INC.	NORTH HOBBS (GRA	AYBURG/SAN ANDRES UNIT)	
Surface Casing Size				
1	Schematic 13 3/8" 12 3/8" 2 40' 2 1500' Soulberson Uni-PKr VI @ ± 4030' 4079' 1	Surface Casing Size TOC Hole size Intermediate Casing Size TOC Hole size Long string Size TOC Hole size Toc Hole size Toc Intermediate Casing Intermediate Intermediat	TOWNSHIP Tabular Data (PROVIDE) "Cemented with feet determined by "Cemented with feet determined by "Cemented with feet determined by	PANGE DELSEWHERE) STATES
Other Data 1. Name of the injection formation 2. Name of Field or Pool (if applicable) 3. Is this a new well drilled for injection? / Yes / No If no, for what purpose was the well originally drilled? 4. Has the well ever been perforated in any other zonc(s)? List all such perforated intervent.	1/////// 4323' (1) 7" (2) 4369' (3) 4370' (4) 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	(1		_
	Other Data 1. Name of the injection formation			

(material) packer atfeet	400		LEASE)
Schematic Surface Casing Size	423	2540' FNL & 1280' FEL	32	18\$	
Surface Casing Size " Cemented with	IELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHLP	RANGE
Surface Casing Size " Cemented with					
Size	Sch	ematic		Tabular Data (PROVID	ED ELSEWHERE)
TOC			Surface Casing		
# Hole size Intermediate Casing Camented with Size Camented with Feet determined by Hole size Camented with TOC Feet determined by Hole size Camented with TOC Feet determined by Hole size Total depth Injection interval Feet to (perforated or open-hole, indicate which) Feet Guiberson Uni-PKr VI @ ±4000' 4051' - 4235' 4379' TD 4380' TD 4380' TD 4380' Seet Seet		13 3/0"	Size	" Cemented with	
Intermediate Casing Size "Cemented with 10C feet determined by Hole size Long string Size "Cemented with 10C feet determined by Hole size Total depth Injection interval feet to (perforated or apen-hole, indicate which) Feet to (perforated or apen-hole, indicate which) ### 4051' - 4235' TD 4380' TD 4380' Injection interval feet to (perforated or apen-hole, indicate which) ###################################		@ 40'	TOC	feet determined by	
Intermediate Casing Size "Cemented with 10C feet determined by Hole size Long string Size "Cemented with 10C feet determined by Hole size Total depth Injection interval feet to (perforated or apen-hole, indicate which) Feet to (perforated or apen-hole, indicate which) ### 4051' - 4235' TD 4380' TD 4380' Injection interval feet to (perforated or apen-hole, indicate which) ###################################			Hole size		
Size			•		
Hole size Long string Size "Cemented with TOC feet determined by Hole size Total depth Injection interval feet to (perforated or open-hole, indicate which) TO 4380' TO 4379' TO 4380' Injection interval ADS1' - 4235' To 4379' To 4379' To 4379' To 4380' To 4379' To 4380' Injection interval (material) packer at feet					
Hole size Long string Size " Cemented with TOC feet determined by Hole size Total depth Injection interval feet to (perforated or open-hole, indicate which) TO 4380' TO 4380' which is a set in a		45/8" @ 1508'			
Long string Size "Cemented with TOC feet determined by Hole size Total depth Injection interval (perforated or open-hole, indicate which) TO 4380' TO 4380' To 4379' To 4380' To 4379' To 4380' T		£ 1000			·
Size		/ .	noie size		
TOC feet determined by					
Hole size Total depth Injection interval feet to (perforated or open-hole, indicate which) Feet 4051' - 4235' TD 4380' ubing size			Size	" Cemented with	
Total depth Injection interval feet to (perforated or open-hole, indicate which) Guiberson Uni-PKr VI @ ±4010' 4051' - 4235' TD 4380' ubing size lined with set in a feet feet feet feet feet feet feet set in a feet		,	TOC	feet determined by	
Total depth Injection interval feet to (perforated or open-hole, indicate which) Guiberson Uni-PKr VI @ ±4010' 4051' - 4235' TD 4380' ubing size lined with set in a feet feet feet feet feet feet feet set in a feet			Hole size		
feet to					·, •
feet to		ad/ll an Duby The	Injection interva	1	
### Guiberson Uni-PKr VI @ ±40 0' ##################################		~ 21/8: OU Duoline 109			feet
### 4051' - 4235' ###################################			(perforated or op	en-hole, indicate which)	
### 4051' - 4235' ###################################					
### 4051' - 4235' ###################################		Color II ! PK= VT @ +4000	,		
### ### ##############################		oulderson uni-FRT VI @ 14010			
### ### ##############################	1				
TD 4380' ubing size lined with set in a (material) packer at feet	1 #	-4051' - 423 5' ·			
TD 4380' ubing size lined with set in a (material) packer at feet		- 4051' - 4235'			· .
TD 4380' ubing size lined with set in a (material) packer at feet		- 4051' - 4235' -			· .
TD 4380' ubing size lined with set in a (material) packer at feet		- 4051' - 4235' -			· .
ubing size lined with set in a set in a feet					
(material) packer atfeet					
(material) packer atfeet	#				
(material) packer atfeet	#				
packer at feet	TD 4380'	<u>7"</u> 4379'	ed with		set in a
	*				
	TD 4380' ubing siz	2" 4379' seline brand and model)	pac		
	TD 4380' ubing siz (b	2 4379' The second and model second and model second and model second s	pac		
ther Data	TD 4380' ubing siz (bor descri	2 4379' The stand and model) The stand and model of the stand and model of the standard sta	pac	cker at	
ther Data Name of the injection formation	TD 4380' ubing siz (b or descri	2 4379' The line of the injection formation	pac ng seal).	cker at	
ther Data Name of the injection formation Name of Field or Pool (if applicable)	TD 4380' (b) (or descripther Data 1. Name of	2 4379' 2 arand and model) 1 be any other casing-tubing 2 cof the injection formation 3 of Field or Pool (if appl	pac ng seal). n icable)	ker at	
ther Data Name of the injection formation	TD 4380' (b) (or descripther Data 1. Name of	2 4379' 2 arand and model) 1 be any other casing-tubing 2 cof the injection formation 3 of Field or Pool (if appl	pac ng seal). n icable)	ker at	
ther Data Name of the injection formation Name of Field or Pool (if applicable)	TD 4380' Tubing siz (b) for descripther Data 1. Name of the control of the co	2 4379' 2 4379' 2 prand and model) 1 be any other casing-tubing 2 prand in the injection formation 3 prand and model) 4 prand and model) 4 prand and model) 5 prand and model) 6 prand and model) 6 prand and model) 6 prand and model) 6 prand and model)	pacing seal). n icable) injection? / // Ye	es / 7 No	
ther Data Name of the injection formation Name of Field or Pool (if applicable) Is this a new well drilled for injection? / Yes / No	TD 4380' Tubing siz (b) for descripther Data 1. Name of the control of the co	2 4379' 2 4379' 2 prand and model) 1 be any other casing-tubing 2 prand in the injection formation 3 prand and model) 4 prand and model) 4 prand and model) 5 prand and model) 6 prand and model) 6 prand and model) 6 prand and model) 6 prand and model)	pacing seal). n icable) injection? / // Ye	es / 7 No	
ther Data Name of the injection formation Name of Field or Pool (if applicable) Is this a new well drilled for injection? / 7 Yes / 7 No If no, for what purpose was the well originally drilled?	TD 4380' [ubing siz (b) [or descripther Data]. Name of the control of the contro	2 4379' 2 4379' 2 1ine 2 1ine 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	paceng seal). n icable) injection? / 7 Ye e well originally di	es / 7 No rilled?	feet
ther Data Name of the injection formation Name of Field or Pool (if applicable) Is this a new well drilled for injection? / 7 Yes / 7 No If no, for what purpose was the well originally drilled? Has the well ever been perforated in any other zone(s)? List all such perforated inter and give plugging detail (sacks of cement or bridge plug(s) used)	TD 4380' ubing siz (b or descri ther Data . Name of	2 4379' 2 4379' 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	paceng seal). n icable) injection? / 7 Ye e well originally di	es / 7 No rilled?	
ther Data Name of the injection formation Name of Field or Pool (if applicable) Is this a new well drilled for injection? / Yes / No If no, for what purpose was the well originally drilled? Has the well ever been perforated in any other zone(s)? List all such perforated inter	TD 4380' ubing siz (b or descri ther Data . Name of	2 4379' 2 4379' 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	paceng seal). n icable) injection? / 7 Ye e well originally di	es / 7 No rilled?	feet

231 2310' FSL WELL NO. FOOTAGE Schematic 15 1/2"	Tbg	SECTION Surface Casing Size TOC Hole size Intermediate Casi Size TOC Hole size Long string Size TOC Hole size Toc Intermediate Interval	TOWNSHIP Tabular Data (PROVIDE " Cemented with feet determined by " Cemented with feet determined by " Cemented with feet determined by	
Schematic	Tbg	Surface Casing Size TOC Hole size Intermediate Casi Size TOC Hole size Long string Size TOC Hole size TOC Hole size Intermediate Casi	Tabular Data (PROVIDE	ED ELSEWHERE)
		TOC Hole size Intermediate Casi Size TOC Hole size Long string Size TOC Hole size Toc Hole size Intermediate Casi	Cemented with feet determined by Cemented with feet determined by Cemented with feet determined by	s
15 1/2"		TOC Hole size Intermediate Casi Size TOC Hole size Long string Size TOC Hole size Toc Hole size Intermediate Casi	Cemented with feet determined by Cemented with feet determined by Cemented with feet determined by	s
9 5/8" 9 5/8" 2 27/32' Cuiberson Uni-PKr TOL & 3860'		TOC Hole size Intermediate Casi Size TOC Hole size Long string Size TOC Hole size Toc Hole size Intermediate Casi	feet determined by	
9 5/8" 9 5/8" 2 27/8" OD Duoline Guiberson Uni-Pkr TOL & 3860'		Hole size Intermediate Casi Size TOC Hole size Long string Size TOC Hole size Toc Intermediate Casi	feet determined by	
9 5/8" 9 5/8" 2 27/8" OD Duoline Guiberson Uni-Pkr TOL & 3860'		Intermediate Casi Size TOC Hole size Long string Size TOC Hole size TOC Injection interva	Cemented with feet determined by " Cemented with feet determined by	
9 5/8" 9 5/8" 2 2732' 2 276" OD Duoline Guiberson Uni-PKr TOL & 3860'		Intermediate Casi Size TOC Hole size Long string Size TOC Hole size Total depth Injection interva	Cemented with feet determined by " Cemented with feet determined by 1	
2732′ 278″ OD Duoline Guiberson Uni-PKr TOL £ 3860′		TOC Hole size Long string Size TOC Hole size Total depth Injection interva	" Cemented with feet determined by " Cemented with feet determined by	
278" OD Duoline 276" OD Duoline Guiberson Uni-PKr TOL 8 3860'		Hole size Long string Size TOC Hole size Total depth Injection interva	feet determined by	
278" OD Duoline Z Guiberson Uni-PKr TOL & 3860'		Hole size Long string Size TOC Hole size Total depth Injection interva	" Cemented with feet determined by	
27/8" OD Duoline Z Guiberson Uni-PKr TOL & 3860'		Long string Size TOC Hole size Total depth Injection interva	Cemented with feet determined by	
€ 2732′ 278″ OD Duoline Z Guiberson Uni-PKr TOL € 3860′		Size TOC Hole size Total depth Injection interva	feet determined by _	
Guiberson Uni-PKr		TOC Hole size Total depth Injection interva	feet determined by _	
Guiberson Uni-PKr TOL & 3860'		TOC Hole size Total depth Injection interva	feet determined by _	
Guiberson Uni-PKr TOL & 3860'		Hole size Total depth Injection interva	1	
TOL @ 3860°	VI @ ±3820	Total depth Injection interva	1	feet
3860′ 7°		Injection interva	1	feet
				feet
		(perforated or op	eet to en-hole, indicate which)	feet
SAII = 4042' - = 4052' = SAIIIU × 4086' - 4097' = 4105' - 4168' = SAIIIL				
= 4176' - 1 4228'				
1 E4. D				
5° 8 4235′				
i accordinate				
4259' Tubing size	line	d with		set in a
			(material)	
(brand and mo	del)	pac pac	ker at	
(or describe any othe	er casing-tubin	g seal).		
Other Data				
1. Name of the injec	tion formation	·		
2. Name of Field or	Pool (if appli	cable)		
3. Is this a new wel	ll drilled for	injection? / Ye	es /T No	
If no, for what p	ourpose was the	e well originally dr	rilled?	
4. Has the well ever	r been perforat g detail (sacks	ted in any other zon s of cement or bridg	nc(s)? List all such perf ge plug(s) used)	orated interv
	· · · · · · · · · · · · · · · · · · ·			
5. Give the depth to	o and name of a	any overlying and/or	r underlying oil or gas zo	nes (pools) i