



November 4, 1999

State of New Mexico
Energy, Minerals & Natural Resources Department
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505

RE: Expansion of Pressure Maintenance Project
North Hobbs (Grayburg/San Andres) Unit
Hobbs; Grayburg – San Andres Pool
Well No. 141
Letter M, Section 29, T-18-S, R-38-E
Lea County, NM

Gentlemen:

Altura Energy LTD respectfully requests administrative approval for expansion of the subject pressure maintenance project by converting North Hobbs (G/SA) Unit Well No. 141 from production to water injection. Administrative Order No. R-6199 granted November 30, 1979, authorized Shell Western E&P Inc. (Altura's predecessor) to conduct the North Hobbs (G/SA) Unit pressure maintenance project within the Hobbs; Grayburg – San Andres Pool.

The following data is submitted in support of this request:

- Form C-108 with miscellaneous data attached
- Form C-102
- A map reflecting the location of the proposed injection well (No. 141). The map identifies all wells located within a two-mile radius of the proposed injector and has a one-half mile radius circle drawn around the proposed injection well which identifies the well's Area of Review.
- An injection well data sheet
- A tabulation of data on all wells of public record within the well's Area of Review
- Schematics of plugged wells that are within the well's Area of Review
- A list of Offset Operators and Surface Owners (these parties have been notified of this application by certified mail)



- An Affidavit of Publication and copy of the legal advertisement that was published in the county in which the well is located.

Your favorable consideration of our request will be appreciated. If you have any questions of a technical nature, please call David Nelson at (505) 397-8211. Otherwise, please call me at (281) 552-1158.

Very truly yours,

Mark Stephens

Mark Stephens
Business Analyst (SG)

CC: Oil Conservation Division
Hobbs District Office
P.O. Box 1980
Hobbs, NM 88241

State of New Mexico
Commissioner of Public Lands
P.O. Box 1148
Santa Fe, NM 87504-1148

Bureau of Land Management
Roswell District Office
2909 West Second Street
Roswell, NM 88201

Offset Operators (see attached list)

Surface Owners (see attached list)

APPLICATION FOR AUTHORIZATION TO INJECT

- ✓ I. PURPOSE: _____ Secondary Recovery X Pressure Maintenance _____ Disposal _____ Storage
Application qualifies for administrative approval? X Yes _____ No
- ✓ II. OPERATOR: Altura Energy LTD
ADDRESS: P.O. Box 4294, Houston, TX 77210-4294
CONTACT PARTY: Mark Stephens, Rm. 338-B, WL2 PHONE: (281) 552-1158
- ✓ 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? X Yes _____ No
If yes, give the Division order number authorizing the project: R-6199 (11/30/79)
- ✓ V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.
- ✓ VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.
- ✓ VII. Attach data on the proposed operation, including:
1. Proposed average and maximum daily rate and volume of fluids to be injected;
 2. Whether the system is open or closed;
 3. Proposed average and maximum injection pressure;
 4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and,
 5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).
- * VIII. Attach appropriate geologic data on the injection zone including appropriate lithologic detail, geologic 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 sources known to be immediately underlying the injection interval.
- ✓ IX. Describe the proposed stimulation program, if any.
- * X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted).
- ✓ XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.
- ✓ XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.
- ✓ XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.
- ✓ XIV. Certification: I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

NAME: Mark Stephens TITLE: Business Analyst (SG)

SIGNATURE: Mark Stephens DATE: 11/4/99

* If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstances of the 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 District Office

III. WELL DATA

- A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:
- (1) Lease name; Well No.; Location by Section, Township and Range; and footage location within the section.
 - (2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.
 - (3) A description of the tubing to be used including its size, lining material, and setting depth.
 - (4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.
- Division District Offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.
- B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.
- (1) The name of the injection formation and, if applicable, the field or pool name.
 - (2) The injection interval and whether it is perforated or open-hole.
 - (3) State if the well was drilled for injection or, if not, the original purpose of the well.
 - (4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.
 - (5) Give the depth to and the 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, 2040 South Pacheco, Santa Fe, New Mexico 87505, 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.

Attachment To Form C-108
Miscellaneous Data

North Hobbs (Grayburg/San Andres) Unit
Well No. 141
Letter M, Section 29, T-18-S, R-38-E
Lea County, New Mexico

III. Well Data

- B.(5) Next higher oil zone -- Grayburg @ +/- 3700'
Next lower oil zone -- Glorieta @ +/- 5300'

VII. Proposed Operation

1. Average Injection Rate 1500 BWPD
Maximum Injection Rate 4000 BWPD
2. Closed Injection System
3. Average Injection Pressure 500 PSIG
Maximum Injection Pressure 805 PSIG (approx.)
(will not exceed 0.2 psi/ft. to top perforation)
4. Source Water – San Andres Produced Water
(Champion Technologies, Inc. analysis attached)

IX. Stimulation Program

Acid treatment of unitized perforations will be performed during conversion work

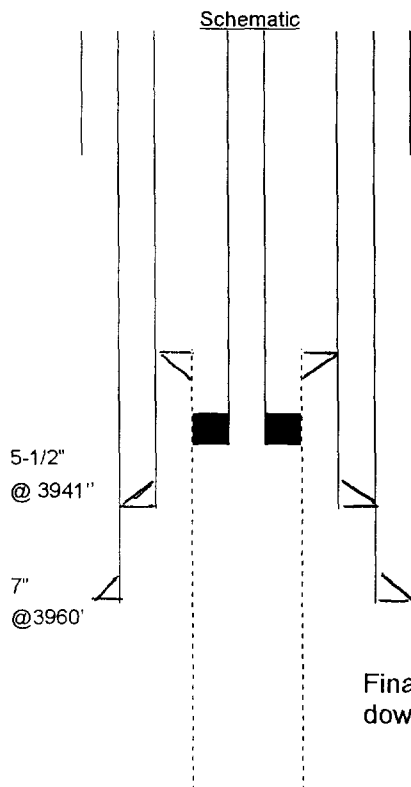
XI. Fresh Water Sample Analysis

(Laboratory Services, Inc. analysis attached – 2 ea.)

- XII. Altura Energy LTD affirms that available geologic and engineering data has been examined resulting in the finding of no evidence of open faults or any other hydrologic connection between the disposal zone and any underground source of drinking water.

INJECTION WELL DATA SHEET

Operator Altura Energy LTD.		Lease North Hobbs G/SA Unit			County Lea
Well No. 29-141	Footage Location 330 FSL & 330 FWL	Section 29	Township 18-S	Range 38-E	Unit Letter M



Tubular Data

Surface Casing

Size	<u>9-5/8</u>	Cemented with	<u>650</u>	sxs.
TOC	<u>1000'</u>	Determined by	<u>Calc.</u>	
Hole size	<u>11-3/4"</u>		<u>w/ 50% Efficiency</u>	

Intermediate Casing

Size	<u>7</u>	Cemented with	<u>300</u>	sxs.
TOC	<u>1850</u>	Determined by	<u>Calc.</u>	
Hole size	<u>8-3/4</u>		<u>w/ 50% Efficiency</u>	

Long string Casing

Size 5-1/2 Cemented with 250 sxs.
TOC 3460 Determined by CBL
Hole size _____

Total depth 4258

Injection interval

4000 feet to 4350 feet

Completion type

Perforations

Final wellbore status will be to run a liner inside the 5-1/2 casing down to TD and cement in place. (See dashed lines in diagram)

Tubing size 2-7/8" lined with Fiberglass Epoxy set in a

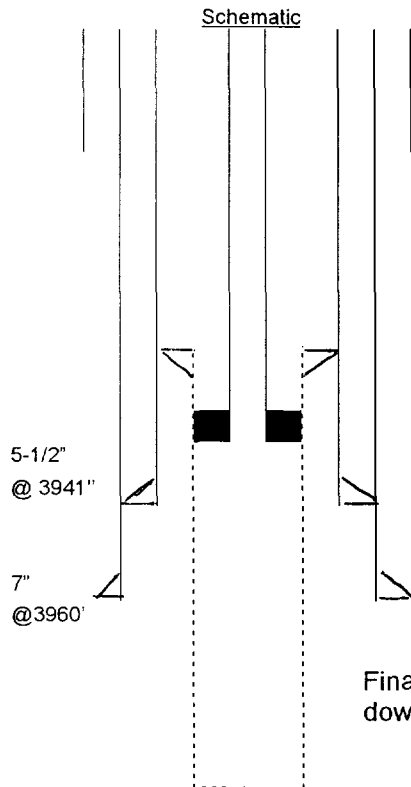
Giberson Uni VI packer at +3950 feet
(brand and model)

Other Data

1. Name of the injection formation San Andres
2. Name of field or Pool Hobbs (Grayburg/San Andres) Pool
3. Is this a new well drilled for injection? Yes ☐ No ☒
If no, for what purpose was the well originally drilled? San Andres producer
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)
None
5. Give the depth to and name of any overlying and/or underlying oil and gas zones (pools) in this area.
Grayburg - 3700, Glorieta - 5300

INJECTION WELL DATA SHEET

Operator Altura Energy LTD.	Lease North Hobbs G/SA Unit	County Lea
Well No. 29-141	Footage Location 330 FSL & 330 FWL	Section 29
		Township 18-S
		Range 38-E
		Unit Letter M



<u>Surface Casing</u>		<u>Tubular Data</u>	
Size	9-5/8	Cemented with	650 sxs.
TOC	1000'	Determined by	Calc.
Hole size	11-3/4"		w/ 50% Efficiency
<u>Intermediate Casing</u>			
Size	7	Cemented with	300 sxs.
TOC	1850	Determined by	Calc.
Hole size	8-3/4		w/ 50% Efficiency
<u>Long string Casing</u>			
Size	5-1/2	Cemented with	250 sxs.
TOC	3460	Determined by	CBL
Hole size			
Total depth	4258		
<u>Injection interval</u>			
	4000	feet to	4350 feet
<u>Completion type</u> Perforations			

Final wellbore status will be to run a liner inside the 5-1/2 casing down to TD and cement in place. (See dashed lines in diagram)

Tubing size 2-7/8" lined with Fiberglass Epoxy set in a
Giberson Uni VI packer at ±3950 feet
 (brand and model)

Other Data

- Name of the injection formation San Andres
- Name of field or Pool Hobbs (Grayburg/San Andres) Pool
- Is this a new well drilled for injection? Yes ☐ No ☒
 If no, for what purpose was the well originally drilled? San Andres producer
- 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)
None
- Give the depth to and name of any overlying and/or underlying oil and gas zones (pools) in this area.
Grayburg - 3700, Glorieta - 5300



P.O. BOX 2187
HOBBS, NEW MEXICO 88240

Saturation Index Calculations
Champion Technologies, Inc.
(Based on the Tomson-Oddo Model)

Telephone (505) 393-7726

Site Information

Company	Altura
Field	North Hobbs Unit
Point	IPD
Date	4/15/98

Water Analysis (mg/L)

Calcium	1,122
Magnesium	194
Barium	0
Strontium	0
Sodium*	3730
Bicarbonate Alkalinity	1,769
Sulfate	1,726
Chloride	6,000

Appended Data

Dissolved CO ₂	228 mg/L
Dissolved O ₂	N/A PPB
H ₂ S	596 mg/L
Iron	0.0 mg/L
Specific Gravity	1.010 value
TDS	14551 mg/L
Total Hardness	3600 mg/L
Well head pH	N/A value

* - Calculated Value

Physical Properties

Ionic Strength*	0.29
pH†	6.52
Temperature	86°F
Pressure	100 psia

* - Calculated Value † - Known/Specified Value

Calcite Calculation Information

Calculation Method	Value
pH	6.52
<hr/>	
Bicarbonate Alkalinity Correction(s)	Value
None Used	---

SI & PTB Results

Scale Type	SI	PTB
Calcite (Calcium Carbonate)	0.48	310.4
Gypsum (Calcium Sulfate)	-0.45	N/A
Hemihydrate (Calcium Sulfate)	-0.32	N/A
Anhydrite (Calcium Sulfate)	-0.72	N/A
Barite (Barium Sulfate)	N/A	N/A
Celestite (Strontium Sulfate)	N/A	N/A

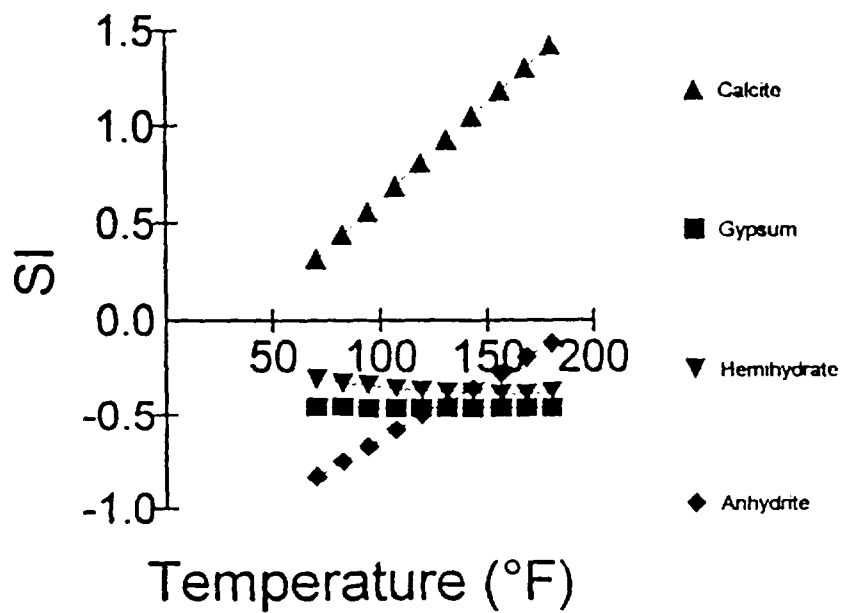
Site Information

Company	Altura
Field	North Hobbs Unit
Point	IPD
Date	4/15/98

SI Results

Temperature (°F)	Calcite	Gypsum	Hemihydrate	Anhydrite
70	0.32	-0.45	-0.30	-0.83
82	0.44	-0.45	-0.32	-0.75
94	0.56	-0.46	-0.33	-0.67
107	0.69	-0.46	-0.35	-0.58
119	0.81	-0.46	-0.36	-0.50
131	0.93	-0.46	-0.37	-0.43
143	1.05	-0.46	-0.37	-0.35
156	1.18	-0.46	-0.38	-0.27
168	1.30	-0.46	-0.38	-0.19
180	1.42	-0.46	-0.37	-0.12

SI





Laboratory Services, Inc.

4016 Fiesta Drive
Hobbs, New Mexico 88240
Telephone: (505) 397-3713

Water Analysis

COMPANY Altura Energy Ltd,

SAMPLE North Hobbs Un. CTB 18S-38E-SEC 29
SAMPLED BY David Nelson SW 1/4, NW 1/4, NW 1/4, NW 1/4

DATE TAKEN 10/12/99

REMARKS

Barium as Ba	0	
Carbonate alkalinity PPM	12	
Bicarbonate alkalinity PPM	212	
pH at Lab	7.48	
Specific Gravity @ 60°F	1.001	
Magnesium as Mg	200	
Total Hardness as CaCO ₃	344	
Chlorides as Cl	155	
Sulfate as SO ₄	145	
Iron as Fe	0.1	
Potassium	0.08	
Hydrogen Sulfide	0	
Rw	7	24 C
Total Dissolved Solids	1,045	
Calcium as Ca	144	
Nitrate	14	

Results reported as Parts per Million unless stated

Langelier Saturation Index + 0.03

Analysis by: Rolland Perry
Date: 10/19/99

**Laboratory Services, Inc.**

4016 Fiesta Drive
Hobbs, New Mexico 88240
Telephone: (505) 397-3713

Water Analysis

COMPANY Altura Energy Ltd,

SAMPLE Basin Surveys 185-38E-SEC 29
SAMPLED BY David Nelson SW'14, SW'14, SE'14

DATE TAKEN 10/12/99
REMARKS

Barium as Ba	0	
Carbonate alkalinity PPM	0	
Bicarbonate alkalinity PPM	256	
pH at Lab	7.44	
Specific Gravity @ 60°F	1.001	
Magnesium as Mg	232	
Total Hardness as CaCO3	400	
Chlorides as Cl	127	
Sulfate as SO4	175	
Iron as Fe	0.01	
Potassium	2	
Hydrogen Sulfide	0	
Rw	8	23 C
Total Dissolved Solids	1,252	
Calcium as Ca	168	
Nitrate	7	

Results reported as Parts per Million unless stated

Langelier Saturation Index - 0.01

Analysis by: Rolland Perry
Date: 10/19/99

DISTRICT II
P.O. Drawer DD, Artesia, NM 88211-0719

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV
P.O. BOX 2088, SANTA FE, N.M. 87504-2088

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-025-07448	Pool Code 31920	Pool Name HOBBS; GRAYBURG - SAN ANDRES
Property Code 19520	Property Name NORTH HOBBS G/SA UNIT	Well Number 141
OGRID No. 157984	Operator Name ALTURA ENERGY LTD.	Elevation 3642


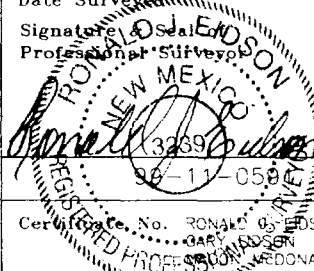
Surface Location

UL or lot No.	Section	Township	Range	Lot ldn	Feet from the	North/South line	Feet from the	East/West line	County
M	29	18 S	38 E		356	SOUTH	327	WEST	LEA

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acres	Joint or Infill	Consolidation Code	Order No.						

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

				<p align="center">OPERATOR CERTIFICATION</p> <p><i>I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.</i></p> <p><u>Mark Stephens</u> Signature</p> <p><u>Mark Stephens</u> Printed Name</p> <p><u>Business Analyst (SG)</u> Title</p> <p><u>November 4, 1999</u> Date</p>
<p>SPC NME NAD 27 Y=624654 X=855459</p>				<p align="center">SURVEYOR CERTIFICATION</p> <p><i>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</i></p> <p align="right">JULY 20, 1999</p>
<p align="center">WELL #141</p> 				<p>Date Surveyed: _____ DMCC</p> <p>Signature: <u>Ronald G. Edson</u> Professional Surveyor</p> <p align="center">  </p> <p>Certification No. RONALD G. EDSON 3239 DARYL EDSON 12641 RONALD D. EDSON 12195</p>

DISTRICT I
P.O. Box 1980, Hobbs, NM 88241-1980

State of New Mexico

Energy, Minerals and Natural Resources Department

Form C-102
Revised February 10, 1994
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

DISTRICT II
P.O. Drawer DD, Artesia, NM 88211-0719

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV
P.O. BOX 2088, SANTA FE, N.M. 87504-2088

OIL CONSERVATION DIVISION

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-025-07448	Pool Code 31920	Pool Name HOBBS; GRAYBURG - SAN ANDRES
Property Code 19520	Property Name NORTH HOBBS G/SA UNIT	Well Number 141
GRID No. 157984	Operator Name ALTURA ENERGY LTD.	Elevation 3642

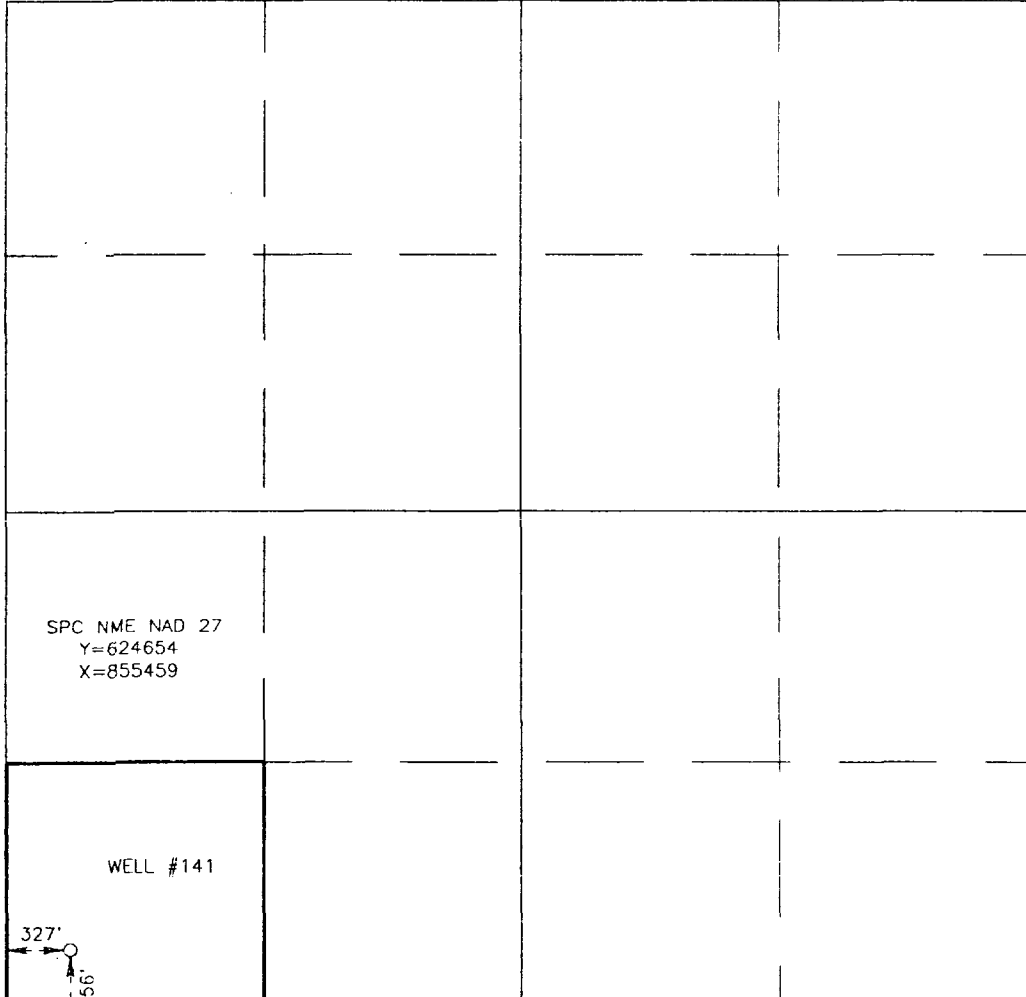
Surface Location

UL or lot No. M	Section 29	Township 18 S	Range 38 E	Lot Idn	Feet from the 356	North/South line SOUTH	Feet from the 327	East/West line WEST	County LEA
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Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acres		Joint or Infill	Consolidation Code	Order No.					

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

				OPERATOR CERTIFICATION I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief. <u>Mark Stephens</u> Signature Mark Stephens Printed Name Business Analyst (SG) Title November 4, 1999 Date	
				SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief. JULY 20, 1999 Date Surveyed Signature: RONALD G. EDSON Professional Surveyor NEW MEXICO 3239 7-27-99 12641 12185 Cert. No. RONALD G. EDSON 12641 12185	

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

Active wells within 1/2 mile radius of proposed 29-141 conversion

Well Name	Oper	API No.	Sec.	T	R	Un Ltr	Drill Date	Well Type	TD or PBT	Top Perf	Bot. Perf	Sqz. Perfs	Csg. Size	Hole Size	Depth	No. of Sxs.	TOC
24242	Altura	30-025-26832	24	-18S	-38E	N	11/21/1980	Inj	4293 (CIBP)	4204	4280	4236-56 4315-89	16 8.625	20 12.25	40 1600	40 785	Surf Surf
													5.5	7.875	4442	1350	Surf/CBL
29131	Altura	30-025-07447	29	-18S	-38E	L	10/30	Prod	4130 (CIBP)	4050	4210		9.625 7	12 8.75	2750 3976	650 300	660 3930
													5 Lnr	6.125	3870-4220	50	
29132	Altura	30-025-26917	29	-18S	-38E	L	12/80	Inj	4372	4030	4265		16 8.625	20 12.25	40 1595	40 785	Surf Surf
													5.5	7.875	4510	900	Surf/CBL
29241	Altura	30-025-07437	29	-18S	-38E	N	9/30	Prod	4255	4076	4239		12.5 9.625	16 11.75	217 2730	160 500	Circ 895
													7	8.75	3929	300	1850 CBL
30341	Altura	30-025-24665	30	-18S	-38E	O	3/74	Prod	4202	4042	4276	4104-26 4164-70 4180-96 4056-69	9.625 5.5 3.5 Lnr	12.25 7.875 4.75	1463 3956 3715-4350	500 625 125	Circ 1910 CBL 3715
30431	Altura	30-025-07474	30	-18S	-38E	I	9/30	Prod	4213	4085	4229	3975-4103	9.625 7	12 8.75	2750 3975	650 300	2009 Calc. CBL/Circ
													5.5	6.125	3917	600	
30432	Altura	30-025-28957	30	-18S	-38E	I	2/85	Prod	4328	4110	4266		13.375 8.625		55 1490		
													5.5		4370	350	CIRC
30441	Altura	30-025-07473	30	-18S	-38E	P	8/30	Prod	4267	4094	4200		9.625 7	12 8.75	2750 3970	650 300	365 2624 CBL
													5.5 Lnr		3847-4267	50	Circ.
30442	Altura	30-025-27001	30	-18S	-38E	P	5/81	Inj	4420	4162	4257	4110-16 4128-34	16 8.625		40 1606	40 850	Circ Circ
													5.5	7.875	4510	1075	Circ

2 wells
AOR

Note: Calculated TOC's are estimated with 50% efficiency

Active wells within 1/2 mile radius of proposed 29-141 conversion

Well Name	Oper	API No.	Sec.	T	R	Un	Drill Date	Well Type	TD or PBTD	Top Perf	Bot. Perf	Sqz. Perfs	Csg. Size	Hole Size	Depth	No. of Sxs.	TOC
30443	Altura	30-025-28958	30	-18S	-38E	P	1/85	Inj	4185 CIBP	4094	4247		8.625		1470	425	440
													5.5		4370	340	858
30444	Altura	30-025-28959	30	-18S	-38E	P	4/85	Prod	4145 CIBP	4106	4270		13.375		40		
													9.625		1519	500	Circ
													7		4369	1035	3900
31312	Altura	30-025-27060	31	-18S	-38E	B	6/81	Inj	4370 CIBP	4134	4281	4150-56	16		40	40	
												4188-90	8.625	12.25	1598	950	Circ. Calc.
													5.5	7.875	4510	1050	2500 CBL
31411	Altura	30-025-07490	31	-18S	-38E	A	7/30	Prod	4159	4134	3938-4175		9	11.75	2744	600	1868
											OH		7	8.25	3938	200	Surf/CBL
													5 Lnr	6.20	3765-4289	75	3756
31412	Altura	30-025-23204	31	-18S	-38E	A	8/69	Prod	3818 CIBP	4134	4306	3909-4135	13.375		343	350	SURF
												4174-4216	8.625		3799	500	2372
													5.5		6255	400	3194 CBL
31421	Altura	30-025-07493	31	-18S	-38E	H	4/34	Prod	4080 CIBP	4169	4190-4265		9.625	11.75	2760	300	1659
											OH	4103-56	7	8.75	3955	150	3048
													5	6.25	4190	635	Surf/CBL
32111	Altura	30-025-07528	32	-18S	-38E	D	12/47	Prod	4095 CIBP	3886	4213		9.625	12.25	306	175	Circ
													7	8.75	3120	600	1520
													4.5	6.25	4249	110	3112 CBL
32112	Altura	30-025-07526	32	-18S	-38E	E	6/34	Inj	4229	4096	4218		15.5	18	238	200	Circ
													9.625	12.25	2757	350	1741
													7	8.75	3954	200	3086 CBL
32121	Altura	30-025-23007	32	-18S	-38E	E	5/69	Prod	4058 CIBP	3915	5958	5758-60	13.375	17.5	342	375	Circ
												5805-5921	8.625	11	3811	500	
												5775-5927	5.5	7.875	6050	455	3546 CBL
32211	Altura	30-025-07525	32	-18S	-38E	C	4/31	Prod	4252	3860-3966-Top OH			13.375	17	189	200	Circ

Note: Calculated TOC's are estimated with 50% efficiency

Active wells within 1/2 mile radius of proposed 29-141 conversion

Well Name	Oper	API No.	Sec.	T	R	Un Ltr	Drill Date	Well Type	TD or PBTD	Top Perf	Bot. Perf	Sqz. Perfs	Csg. Size	Hole Size	Depth	No. of Sxs.	TOC
										3966-4046-Bottom OH			9.625	12.25	2736	600	977
													6.625	8.75	3860	300	2210 CBL
32212	Altura	30-025-30258	32	-18S	-38E	C	4//88	Prod	4305	4135	4256		9.625		1504	650	SURF
													7		4348	1150	CIRC
32222	Altura	30-025-27140	32	-18S	-38E	F	12//80	Inj	4230	4090	4218	4246-58	16		40	40	Surf
													8.625		1607	800	Circ
													5.5		4510	900	724 CBL

Note: Calculated TOC's are estimated with 50% efficiency

Active Outside Operated wells within 1/2 mile radius of proposed 29-141 conversion

Well Name	API No.	Sec.	T	R	Un	Drill	Well	TD or	Top	Bot.	Sqz.	Csg.	Hole	Depth	No. of
Oper					Ltr	Date	Type	PBTD	Perf	Perf	Perfs	Size	Size		Sxs.
Bowers A Fed. #28	30-025-23022	29 -18S	-38E	M	3/69	Prod	5350	2628	3734	2947	11.75	15	374	300	Circ.
Exxon							CIBP				8.625	11	3850	500	2500 TS
											5.5	7.875	5989	450	3838 'c'
Bowers A Fed. #29	30-025-23131	29 -18S	-38E	L	5/69	Prod	6000	5831	5889			11.75	15	370	300
Exxon											8.625	11	3849	500	1877 'c'
											4.5	7.875	6000	450	5087 'c'
Bowers A Fed. #37	30-025-26485	30 -18S	-38E	P	10/79	Prod	3918	2637	3556			8.625	12.25	501	400
Exxon											5.5	7.625	3910	850	Circ.
Grimes A #1	30-025-07519	32 -18S	-38E	D	4/30	Prod	3780	3684	3749			9.625	12.25	2735	600
Chevron											7	8.75	3933	200	3264 'c'
											4.5	6.25	4260	70	4031 'c'
Grimes A #16	30-025-22627	32 -18S	-38E	D	7/68	Prod	7050	5871	6083			9.625	12.25	1497	575
Chevron											7	8.75	7039	2925	Surf 'c'
Grimes A #17	30-025-22792	32 -18S	-38E	C	10/68	Prod	5970	5782	5996			13.375	17.5	366	370
Chevron							CIBP				9.625	12.25	3399	1450	Circ.
											7	8.75	6149	545	2510 TS
St A #7	30-025-22934	29 -18S	-38E	N	1/69	Prod	6050	5823	5941			11.75	15	360	250
Conoco											8.625	11	3800	240	3064 'c'
											5.5	7.875	6050	405	4444 'c'
St A #8	30-025-23048	29 -18S	-38E	K	2/69	Prod	5960	3652	5787	5796-5924	8.625	11	3800	240	2550 TS
Conoco											5.5	7.875	5960	405	2900 TS

Note: 'c' in TOC column denotes calculated cmt top w/ 50% efficiency.

Plugged wells within 1/2 mile radius of proposed 29-141 conversion

Well Name	API No.	Sec.	T	R	Un	Drill Date	Well Type	TD or PBTD	Top Perf	Bot. Perf	Sqz. Perfs	Csg. Size	Hole Size	Depth	No. of Sxs.	TOC
Oper					Ltr											
Bowers A #12	30-025- 07450	29 -18S	-38E	L	4/47	PA	3088	No data		No data		8.625	11	222	100	Surf 'c'
Exxon												5.5	7.875	3132	575	880 TS
Bowers A #14	30-025- 07451	29 -18S	-38E	M	8/47	PA	3207		3120	3207		8.625	11	496	400	Circ.
Exxon									OH			5.5	7.625	3120	1350	Circ.
Bowers A #16	30-025- 07478	30 -18S	-38E	O	10/47	PA	3225		3151	3221		8.625	11	262	150	Circ.
Exxon									OH			5.5	7.625	3151	1000	Circ.
Bowers A Fed. #15	30-025- 07477	30 -18S	-38E	P	8/47	PA	3218		3158	3218		8.625	11	249	150	Circ.
Exxon									OH			5.5	7.625	3158	1250	Circ.
Bowers A Fed. #17	30-025- 21900	30 -18S	-38E	J	10/66	PA	50		12	50		7	8	12	6	Circ.
Exxon									OH							
Bowers A Fed. #30	30-025- 23144	30 -18S	-38E	P	6/69	PA	6000		5356	5946		8.625	11	3836	500	2300 TS
Exxon												4.5	7.875	5988	550	2800 TS
Bowers A Fed. #32	30-025- 23235	30 -18S	-38E	O	8/69	PA			5825	5964		13.375	17.5	385	400	2250
Exxon												6974-82	11	3850	550	2900
												7	8.75	7053	895	
Bowers A Fed. #CT18	30-025- 21965	30 -18S	-38E		1/67	PA	50									
Exxon																
Bowers A Fed. #CT19	30-025- 21966	30 -18S	-38E		1/67	PA	30									
Exxon																
Bowers A Fed. #CT20	30-025- 21967	30 -18S	-38E		1/67	PA	32									
Exxon																
Bowers A Fed. #CT21	30-025- 21968	30 -18S	-38E		1/67	PA	37									
Exxon																
Bowers A Fed. #CT22	30-025- 21961	29 -18S	-38E		1/67	PA	32									
Exxon																

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Note: 'c' in TOC column denotes calculated cmt top w/ 50% efficiency.

(*) Data not found in State records

Plugged wells within 1/2 mile radius of proposed 29-141 conversion

Well Name	API No.	Sec.	T	R	Un	Drill Date	Well Type	TD or PBTD	Top Perf	Bot. Perf	Sqz. Perfs	Csg. Size	Hole Size	Depth	No. of Sxs.	TOC
Oper					Ltr											
Bowers A Fed. #CT23	30-025- 21962	29 -18S	-38E			1/67	PA	35								
Exxon																
Clara Fowler #5	30-025- 07494	31 -18S	-38E	A	9/47	PA	3215		3160	3215		8.625	11.25	312	175	Surf 'c'
Cities Serv.									OH			5.5	7.75	3160	600	Surf 'c'
Clara Fowler #6	30-025- 07495	31 -18S	-38E	H	12/47	PA	3235		3165	3265		8.625	11.25	281	175	Surf 'c'
Cities Serv.									OH			5.5	7.75	3165	600	Surf 'c'
Clara Fowler #7	30-025- 07496	31 -18S	-38E	B	1/48	PA	3252		3159	3252		8.625	11.5	290	175	Surf 'c'
Cities Serv.									OH			5.5	7.75	3159	600	Surf 'c'
F.A Bowers #6	30-025- 22276	30 -18S	-38E	J	10/67	PA	45		10	45		5.5	6.75	10	3	No data
ARC Ind.									OH							
F.A Bowers #13	30-025- 22277	30 -18S	-38E	J	10/67	PA	45		10	45		5.5	6.75	10	3	No data
ARC Ind.									OH							
Grimes A #13	30-025- 07531	32 -18S	-38E	E	2/48	PA	3222		3140	3222		8.625	12	299	225	Circ.
Chevron									OH			5.5	7.875	3129	600	1555 TS
Grimes A #4	30-025- 07522	32 -18S	-38E	C	7/30	PA	4153		3604	3700		15.5	20	220	200	Surf 'c'
Chevron												9.625	12.25	2742	600	318 'c'
												6.625	8.75	3931	400	625 'c'
St A #5	30-025- 07440	29 -18S	-38E	K	3/47	PA	3200		3168	3188		10.75	13.75	272	200	Surf 'c'
Conoco												7.625	9.875	999	425	Surf 'c'
												5.5	7.875	3206	450	No data
St A #6	30-025- 07441	29 -18S	-38E	N	3/47	PA	3172		3158	3166		8.625	10.75	1562	475	Surf 'c'
Conoco												7	8.25	2721	350	Surf 'c'
												5	6.25	3168	500	Surf 'c'

(*)

Note: 'c' in TOC column denotes calculated cmt top w/ 50% efficiency.

(*) Data not found in State records

**WELL SCHEMATIC:
EXXON BOWERS A FED #12**

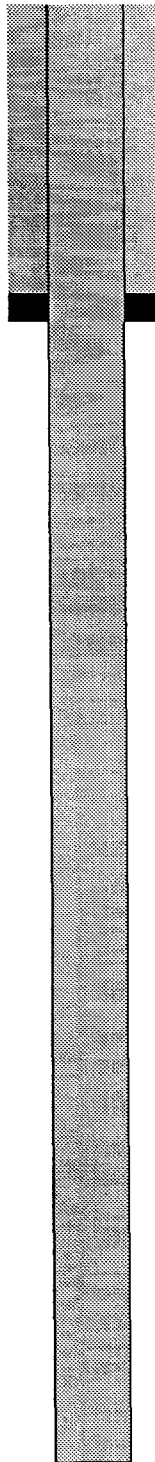
WELL PLUGGED:
8/19/98

6 5/8"
10'
3 SX
TOC: NA

Csg was pulled out of hole.
Well was filled to the surface
With approximately .75 yards
Of 5 sx Redi-Mix.

10' to 45' – open hole

TD: 45'



**WELL SCHEMATIC:
EXXON BOWERS A FED #14**

WELL PLUGGED
12/21/70

8 5/8"
496'
400 SXS
TOC: CIRC

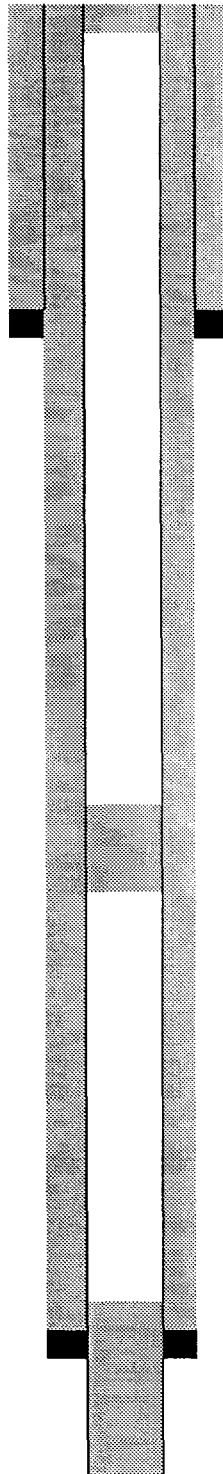
Spotted 10 sxs
from 0' – 25'.

Spotted 25 sxs cmt plug from
1400' – 1550'.

5 1/2"
3120'
1350 SXS
TOC: CIRC

TD: 3207

Spotted 25 sxs cmt plug
from 3000' – 3207'.



**WELL SCHEMATIC:
EXXON BOWERS A FED #16**

WELL PLUGGED:
11/27/70

Spotted a 10 sxs cmt plug at
surface with marker.

8 5/8 "
262'
150 SXS
TOC: CIRC

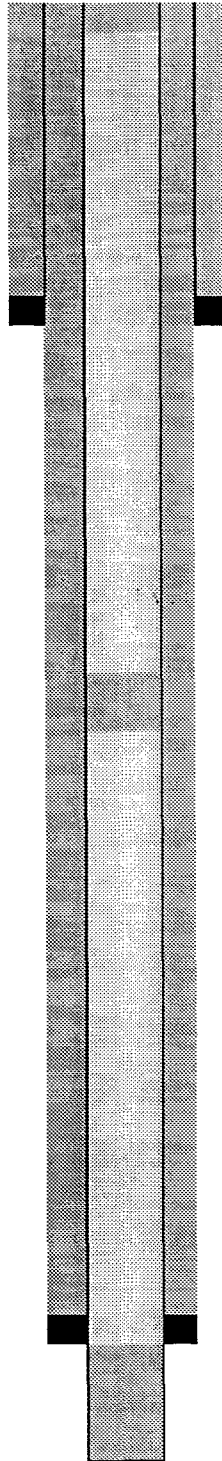
Hole loaded with mud laden
fluids.

5 1/2 "
3151'
1000 SXS
TOC: CIRC

Spotted a 20 sxs cmt plug
from 1400' to 1550'

TD: 3225'

Spotted a 30 sxs cmt plug from
3050' to 3225'



**WELL SCHEMATIC:
EXXON BOWERS A FED #15**

WELL PLUGGED:
11/27/70

8 5/8"
249'
150 SX
TOC: CIRC

Spotted 10 sx cmt plug at
Surface.

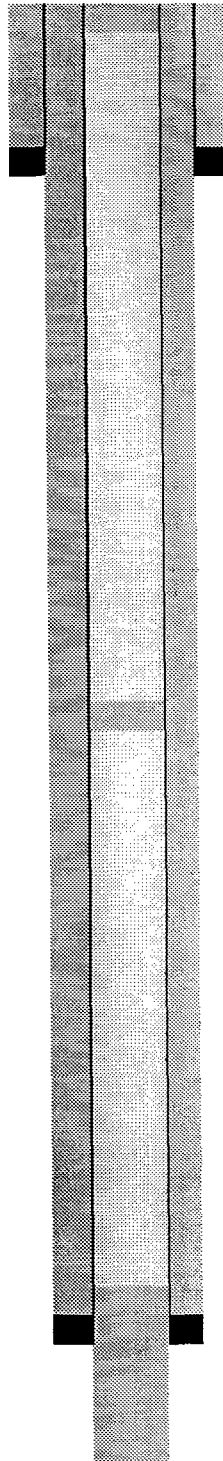
Hole was loaded with mud
Laden fluid.

5 1/2"
3158'
1250 SX
TOC: CIRC

Spotted 20 sx cmt plug from
1400' to 1500'.

TD: 3218'

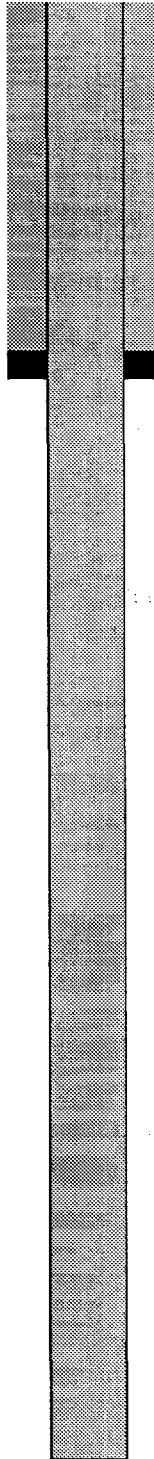
Spotted 25 sx cmt plug at
3218'.



**WELL SCHEMATIC:
EXXON BOWERS A FED #17**

WELL PLUGGED:
11/30/66

7"
12'
6 SX
TOC: CIRC



12' of 7" csg left in hole.

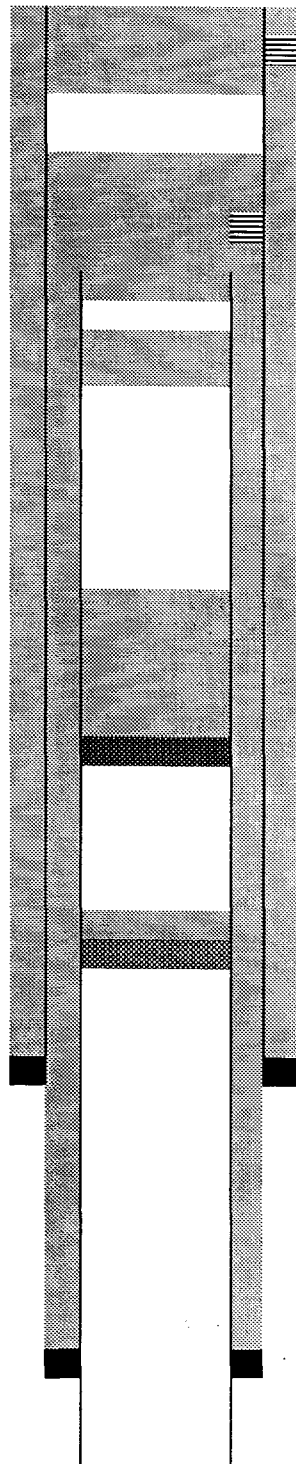
Filled hole with approximately
.75 yards of 5 sx Redi-Mix.

TD: 50'

**WELL SCHEMATIC:
EXXON BOWERS A FED #30**

WELL PLUGGED:
8/4/90

8 5/8"
3836'
500 SX
TOC: 2300' TS



Perf'd 8 5/8" at 450'. Pumped
211 sx down 8 5/8" thru perfs
At 450' and circulate.

Perf'd 8 5/8" csg at 1485'.
Cut off 4 1/2 csg at 1500'.
Spotted 77 sx cmt plug from
1500' to 1385'.

Spotted 15 sx cmt plug from
2711' to 2528'.

Spotted 70 sx cmt plug from
4632' to 3364'.

Cmt. ret. at 4632' – sqz with
25 sx.

CIBP at 5300' w/ 35' cmt cap.

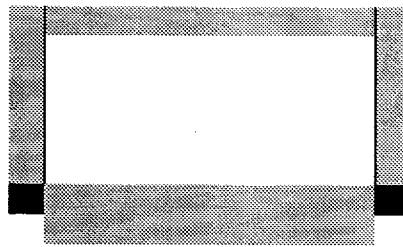
4 1/2"
5988'
550 SX
TOC: 2800' TS

TD: 6000'

WELL SCHEMATIC - Exxon Bowers A Federal #32

Well plugged 9/14/72

13-3/8"
401'
600 sxs
TOC: Circ.



20' cmt. Plug at surface.

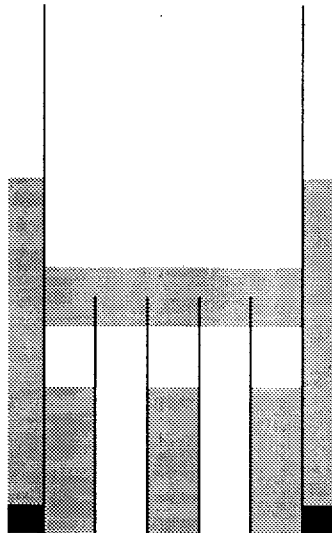
100' cmt plug at 13-3/8 csg shoe



100' cmt plug at 1400'

9-5/8" casing cut off at 1800'

9-5/8" TOC: 2250'



Both 3-1/2" strings cut off at 2700' and capped with 100' of cmt.

Cmt top inside 9-5/8" at 2900'

9-5/8"
3850'
550 sxs

100' cmt plug at 4050'

100' cmt plug at 4050'

100' cmt plug at 5800'

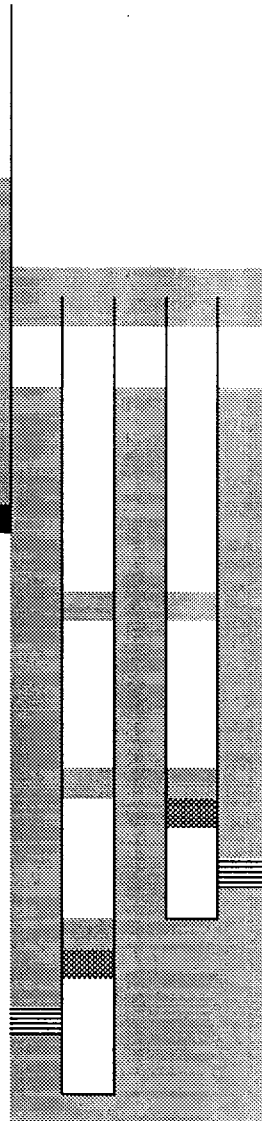
Plug w/ 100' cmt at 5694'

Plug w/ 100' cmt at 6200'

Perfs: 5825-5964'

Perfs: 6974-82'

TD:7075'



**WELL SCHEMATIC:
CITIES SERVICE FOWLER #5**

WELL PLUGGED:
3/1/72

8 5/8"
312'
175 SX
TOC: SURF (C)

Displaced 10 sx cmt plug
From 60' to 0'.

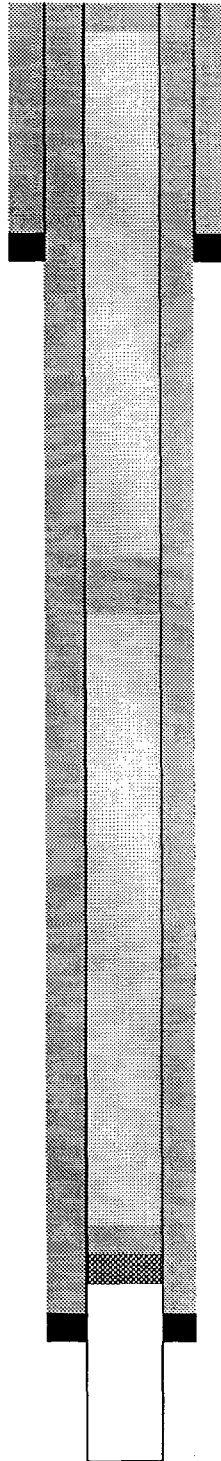
Loaded hole with mud laden
Fluid.

5 1/2"
3160'
600 SX
TOC: SURF (C)

Displaced 25 sx cmt plug
From 1560' to 1360'.

TD: 3215'

Set CIBP in 5 1/2" csg at 3026'
And dumped 2 sx cmt plug
On top of CIBP from 3026' to
3010'.



**WELL SCHEMATIC:
CITIES SERVICE FOWLER #6**

WELL PLUGGED:
3/1/72

8 5/8"
281'
175 SX
TOC: SURF (C)

Displaced 10 sx cmt plug
From 60' to 0'.

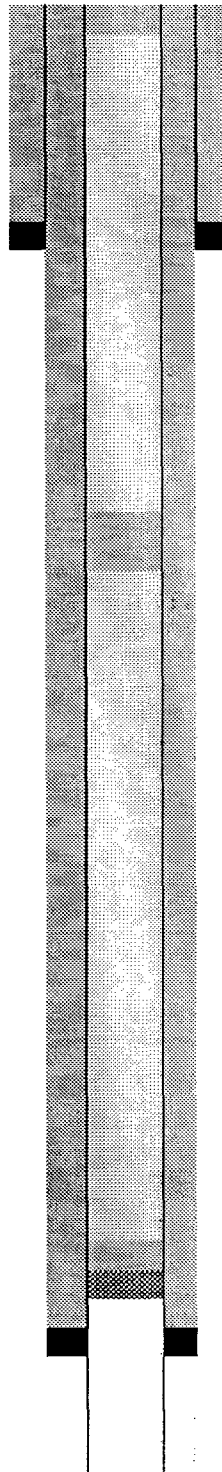
5 1/2"
3165'
600 SX
TOC: SURF (C)

Loaded hole with mud laden
Fluid.

Displaced 25 sx cmt plug
From 1610' to 1410'.

TD: 3235

Set CIBP at 3100' and
Dumped 2 sx cmt plug on top
Of CIBP from 3100' to 3084'.



**WELL SCHEMATIC:
CITIES SERVICE FOWLER #7**

WELL PLUGGED:
3/1/72

8 5/8"
290'
175 SX
TOC: SURF (C)

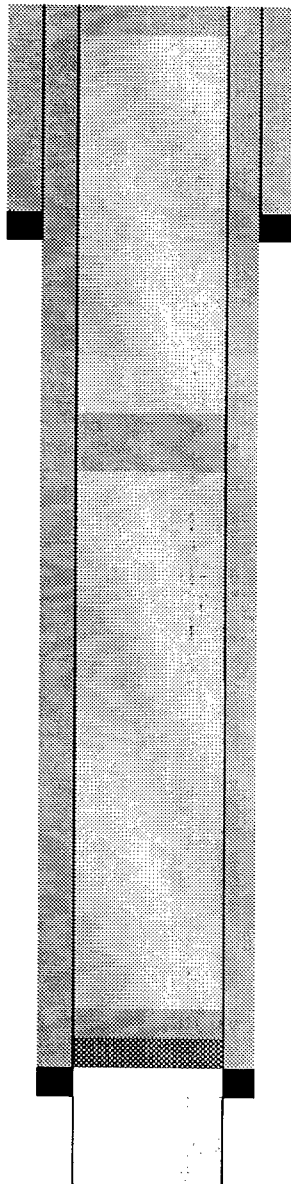
Spotted 10 sx cmt plug from
60' to 0'.

Loaded hole with mud.

Spotted 25 sx cmt plug from
1610' to 1410'.

5 1/2"
3159'
600 SX
TOC: SURF (C)

Dumped 2 sx cmt plug on top
Of CIBP from 3101' to 3085'.
Set CIBP in 5 1/2" csg at 3101'

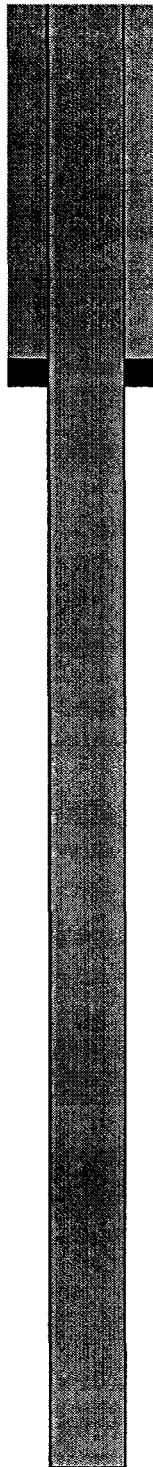


TD: 3252'

**WELL SCHEMATIC:
ARC IND BOWERS A FED #6**

WELL PLUGGED:
8/19/98

6 ¾"
10'
3 SX
TOC: NA



Csg was pulled and well was
Filled with approximately
.75 yards of 5 sx Redi-Mix.

TD: 45'

**WELL SCHEMATIC: EXXON
BOWERS A FED. #13**

WELL PLUGGED:
5/10/71

8 5/8"
283'
125 sxs
TOC: SURF (C)

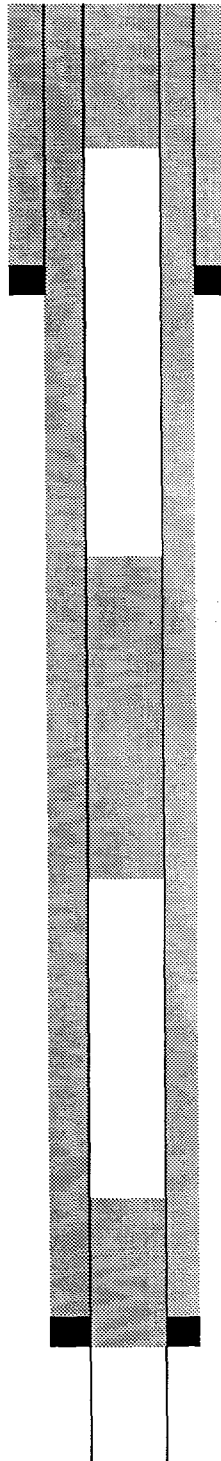
10 sxs cmt plug set from
50' to surf

20 sxs cmt plug set from
1500' to 1400'

5 1/2"
3150'
1350 sxs
TOC: SURF (C)

50 sxs cmt plug set from
3189' to 2800'

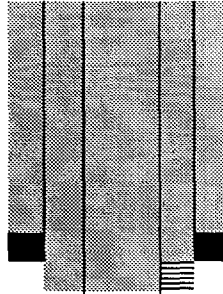
TD: 3189'



**WELL SCHEMATIC:
CHEVRON WD GRIMES A #13**

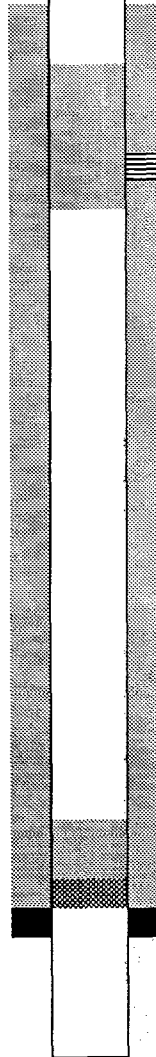
WELL PLUGGED:
6/20/96

8 5/8"
299'
225 SX
TOC: CIRC



Perfd at 362' and circ surf
Csg full with 132 sx.

5 1/2"
3129'
600 SX
TOC: 1555 TS



Perfd at 1470'. Spot 35 sx
At 1593' and circ(TOC:1256')

TD: 3222'

Set CIBP at 3100'. Spot 25
Sx and circ (TOC: 2860')

**WELL SCHEMATIC:
CHEVRON WD GRIMES A #4**

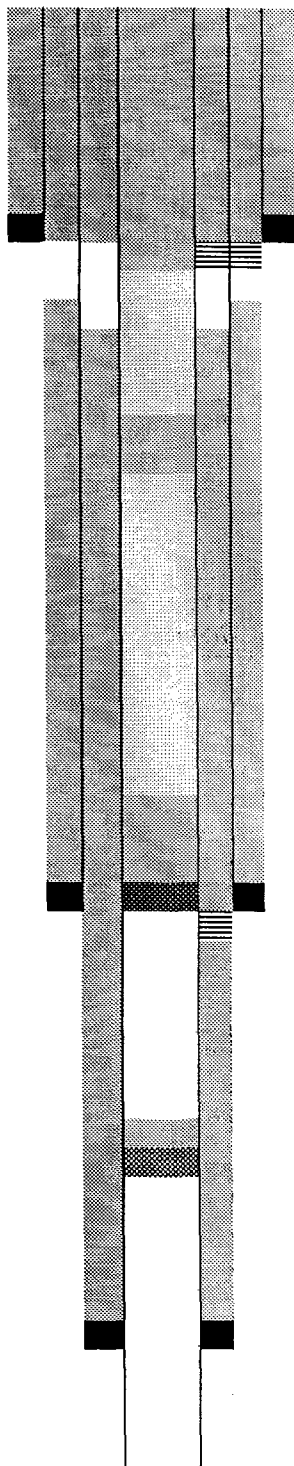
WELL PLUGGED:
12/1/89

15 1/2"
220'
200 SX
TOC: SURF (C)

9 5/8"
2742'
600 SX
TOC: 318 (C)

7"
3931
400 SX
TOC: 625

TD: 4153'



Perfd at 270'. Circ up 9 5/8
And 15 1/2" annulus and cmtd
With 400 sx.

Spot 50 sx cmt plug from
1308' to 1058'.

Circ well bore with P&A mud
Above cmt ret.

Spot 50 sx cmt plug from
2696' to 2360'.

Set cmt ret at 2696'.
Perfd at 2792'.

Cap CIBP at 3078' with 35'
Cmt.

WELL SCHEMATIC:
CONOCO STATE A #5

WELL PLUGGED:
1/12/71

10 3/4"
272'
200 SX
TOC: SURF (C)

Spotted a 10 sx cmt plug
At surface.-

Filled well bore with 10# mud

7 5/8"
999'
425SX
TOC: SURF (C)

Cut 5 1/2" csg at 1570' and
Pulled out of hole. Set a 55
Sx cmt plug in and out of
5 1/2" stub.

5 1/2"
3206
450 SX
TOC: NA

PBTD:3168'

Spotted 40 sx cmt plug over
Perfs from 3188' to 3168'.

**WELL SCHEMATIC:
CONOCO STATE A #6**

WELL PLUGGED:
1/12/71

8 5/8"
1562'
475 SX
TOC: SURF (C)

Set a 10 sx cmt plug at surf.

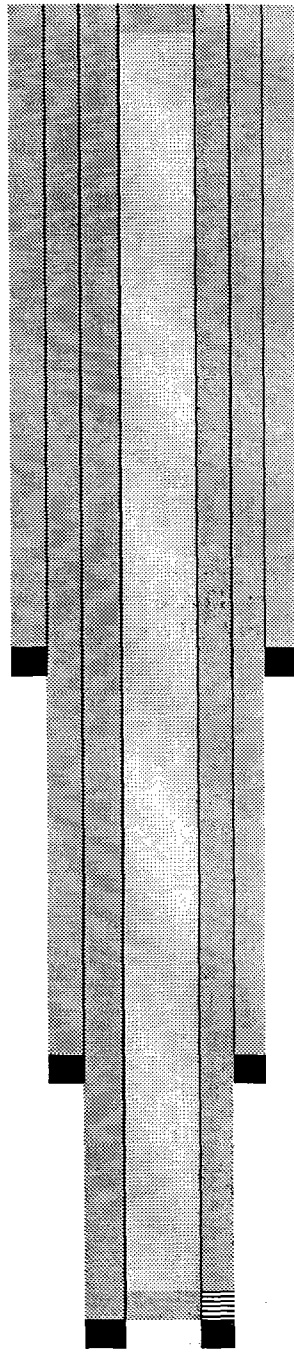
7"
2721'
350 SX
TOC: SURF (C)

Filled well bore with 10# mud.

5"
3168'
500 SX
TOC: SURF (C)

TD:3172'

Set a 40 sx cmt plug over
Perfs from 3166' to 3158'.



LIST OF OFFSET OPERATORS & SURFACE OWNERS

North Hobbs (Grayburg/San Andres) Unit
Well No. 141
Letter M, Section 29, T-18-S, R-38-E
Lea County, New Mexico

Offset Operators

Altura Energy LTD
P.O. Box 4294
Houston, TX 77210-4294

Exxon Company, U.S.A.
Attn: Joint Interest Operations
P.O. Box 4707
Houston, TX 77210-4707

Chevron Production Co.
NOJV Mgr.
P.O. Box 1635
Houston, TX 77251

Conoco Inc.
10 Desta Dr. West
Midland, TX 79705

Surface Owners

William Cecil Grimes Maddox
C/O R. M. & S. Enterprises
P.O. Drawer C
Hobbs, NM 88241

Is your RETURN ADDRESS completed on the reverse side?

SENDER: <ul style="list-style-type: none">■ Complete items 1 and/or 2 for additional services.■ Complete items 3, 4a, and 4b.■ Print your name and address on the reverse of this form so that we can return this card to you.■ Attach this form to the front of the mailpiece, or on the back if space does not permit.■ Write "Return Receipt Requested" on the mailpiece below the article number.■ The Return Receipt will show to whom the article was delivered and the date delivered.		I also wish to receive the following services (for an extra fee): 1. <input type="checkbox"/> Addressee's Address 2. <input type="checkbox"/> Restricted Delivery Consult postmaster for fee.	
3. Article Addressed to: Exxon Company, U.S.A Attn: Joint Interest Operations P.O. Box 4707 Houston, TX 77210-4707		4a. Article Number P 447 842 776	
		4b. Service Type <input type="checkbox"/> Registered <input checked="" type="checkbox"/> Certified <input type="checkbox"/> Express Mail <input type="checkbox"/> Insured <input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> COD	
		7. Date of Delivery	
5. Received By: (Print Name)		8. Addressee's Address (Only if requested and fee is paid)	
6. Signature: (Addressee or Agent) X			

Thank you for using Return Receipt Service.

PS Form 3811, December 1994

102595-97-B-0179

Domestic Return Receipt

Is your RETURN ADDRESS completed on the reverse side?

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3. Article Addressed to: Chevron Production Co. NOJV Mgr. P.O. Box 1635 Houston, TX 77251		4a. Article Number P 447 842 777	
		4b. Service Type <input type="checkbox"/> Registered <input checked="" type="checkbox"/> Certified <input type="checkbox"/> Express Mail <input type="checkbox"/> Insured <input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> COD	
		7. Date of Delivery	
5. Received By: (Print Name)		8. Addressee's Address (Only if requested and fee is paid)	
6. Signature: (Addressee or Agent) X			

Thank you for using Return Receipt Service.

PS Form 3811, December 1994

102595-97-B-0179

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I also wish to receive the following services (for an extra fee):

1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

Conoco Inc.
10 Desta Dr. West
Midland, TX 79705

4a. Article Number

P 447 842 778

4b. Service Type

- | | |
|---|---|
| <input type="checkbox"/> Registered | <input checked="" type="checkbox"/> Certified |
| <input type="checkbox"/> Express Mail | <input type="checkbox"/> Insured |
| <input type="checkbox"/> Return Receipt for Merchandise | <input type="checkbox"/> COD |

7. Date of Delivery

5. Received By: (Print Name)

6. Signature: (Addressee or Agent)

X

8. Addressee's Address (Only if requested and fee is paid)

PS Form 3811, December 1994

102595-97-B-0179

Domestic Return Receipt

Thank you for using Return Receipt Service.

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I also wish to receive the following services (for an extra fee):

1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

William Cecil Grimes Maddox
c/o R.M. & S. Enterprises
P.O. Drawer C
Hobbs, NM 88241

4a. Article Number

P 447 842 779

4b. Service Type

- | | |
|---|---|
| <input type="checkbox"/> Registered | <input checked="" type="checkbox"/> Certified |
| <input type="checkbox"/> Express Mail | <input type="checkbox"/> Insured |
| <input type="checkbox"/> Return Receipt for Merchandise | <input type="checkbox"/> COD |

7. Date of Delivery

5. Received By: (Print Name)

6. Signature: (Addressee or Agent)

X

8. Addressee's Address (Only if requested and fee is paid)

PS Form 3811, December 1994

102595-97-B-0179

Domestic Return Receipt

Thank you for using Return Receipt Service.

AFFIDAVIT OF PUBLICATION

State of New Mexico,
County of Lea.

I, KATHI BEARDEN

Publisher

of the Hobbs News-Sun, a
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 2
_____ weeks.

Beginning with the issue dated

September 11 1999
and ending with the issue dated

September 12 1999

Kathi Bearden

Publisher

Sworn and subscribed to before

me this 22nd day of

October 1999

Joel Hansen

Notary Public.

My Commission expires
October 18, 2000
(Seal)

This newspaper is duly qualified
to publish legal notices or adver-
tisements within the meaning of
Section 3, Chapter 167, Laws of
1937, and payment of fees for
said publication has been made.

LEGAL NOTICE

SEPTEMBER 12, 1999

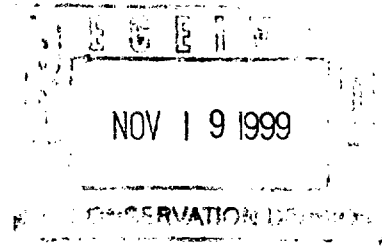
Notice is hereby given of the
application of Altura Energy
LTD, Attn: Mark Stephens,
P.O. Box 4294, Rm. 338-B,
Houston, TX 77210-4294
(281/552-1158), to the Oil
Conservation Division, New
Mexico Energy, Minerals and
Natural Resources Depart-
ment, for approval of the fol-
lowing injection wells for the
purpose of secondary recov-
ery:

Pool Name: Hobbs; Grayburg
-San Andres
Lease/Unit Name: North
Hobbs G/SA Unit
Well No. 221
Loc.: 2310' FNL & 2310' FWL,
Unit Letter F, Sec. 24, T-18-S,
R-37-E, Lea Co., NM
Well No. 342
Loc.: 145' FSL & 1435' FEL,
Unit Letter O, Sec. 24, T-18-
S, R-37-E, Lea Co., NM
Well No. 432
Loc.: 2480' FSL & 1280' FEL,
Unit Letter I, Sec. 24, T-18-S,
R-37-E, Lea Co., NM
Well No. 141
Loc.: 330' FSL & 330' FWL,
Unit Letter M, Sec. 29, T-18-
S, R-38-E, Lea Co., NM
Well No. 241
Loc.: 330' FSL & 2310' FWL,
Unit Letter N, Sec. 29, T-18-
S, R-38-E, Lea Co., NM
Well No. 112
Loc.: 200' FNL & 1310' FWL,
Unit Letter D, Sec. 30, T-18-
S, R-38-E, Lea Co., NM
Well No. 233
Loc.: 2455' FSL & 1480' FWL,
Unit Letter K, Sec. 30, T-18-S,
R-38-E, Lea Co., NM
Well No. 313
Loc.: 405' FNL & 2272' FEL,
Unit Letter B, Sec. 30, T-18-S,
R-38-E, Lea Co., NM
Well No. 332
Loc.: 2470' FSL & 1600' FEL,
Unit Letter J, Sec. 30, T-18-S,
R-38-E, Lea Co., NM
Well No. 412
Loc.: 760' FNL & 550' FEL,
Unit Letter A, Sec. 30, T-18-S,
R-38-E, Lea Co., NM
Well No. 432
Loc.: 2260' FSL & 180' FEL,
Unit Letter I, Sec. 30, T-18-S,
R-38-E, Lea Co., NM

The injection formation is the
Hobbs; Grayburg-San Andres
Pool between the intervals of
+/-3700' and +/-5300' below
the surface of the ground. Ex-
pected maximum infection
rate is 4000 BWPD and the
expected maximum injection
pressure is approximately 805
psi. Interested parties must
file objections or requests for
hearing with the Oil Conser-
vation Division, 2040, S. Pa-
checo, Santa Fe, NM 87505
within fifteen (15) days.
#16873

02101173000 01535865

Altura Energy LTD
P. O. Box 4294
Houston, TX 77210-4294



November 16, 1999

State of New Mexico
Energy, Minerals & Natural Resources Department
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505

RE: Expansion of Pressure Maintenance Project
North Hobbs (Grayburg/San Andres) Unit
Hobbs; Grayburg – San Andres Pool
Well No. 141
Letter M, Section 29, T-18-S, R-38-E
Lea County, NM

ATTN: Mr. Mark Ashley
Engineering Bureau

Dear Mr. Ashley:

Please reference Altura Energy LTD's application filed with your office on November 4, 1999 to convert the subject well to water injection. Attached please find a revised Injection Well Data Sheet which accounts for a 4-1/2" liner (3417' – 4238') that was inadvertently omitted on the original data sheet. If you would, please associate this revision with the November 4th filing.

If you have any questions or require additional information, please call me at (281) 552-1158.

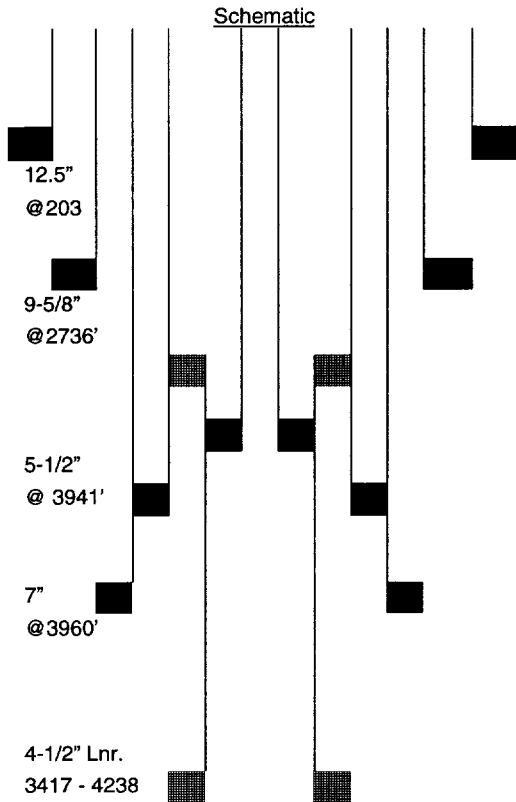
Very truly yours,

Mark Stephens

Mark Stephens
Business Analyst (SG)

INJECTION WELL DATA SHEET

Operator Altura Energy LTD.		Lease North Hobbs G/SA Unit			County Lea
Well No. 29-141	Footage Location 330 FSL & 330 FWL	Section 29	Township 18-S	Range 38-E	Unit Letter M



Tubular Data

<u>Surface Casing</u>	
Size	9-5/8"
TOC	1000'
Hole size	11-3/4"
<u>Intermediate Casing</u>	
Size	7"
TOC	1850'
Hole size	8-3/4"
<u>Long string Casing</u>	
Size	5-1/2"
TOC	3460'
Hole size	
<u>Liner</u>	
Size	4-1/2"
TOC	3774'
Hole size	

Total depth 4258

Injection interval
4000 feet to 4350 feet

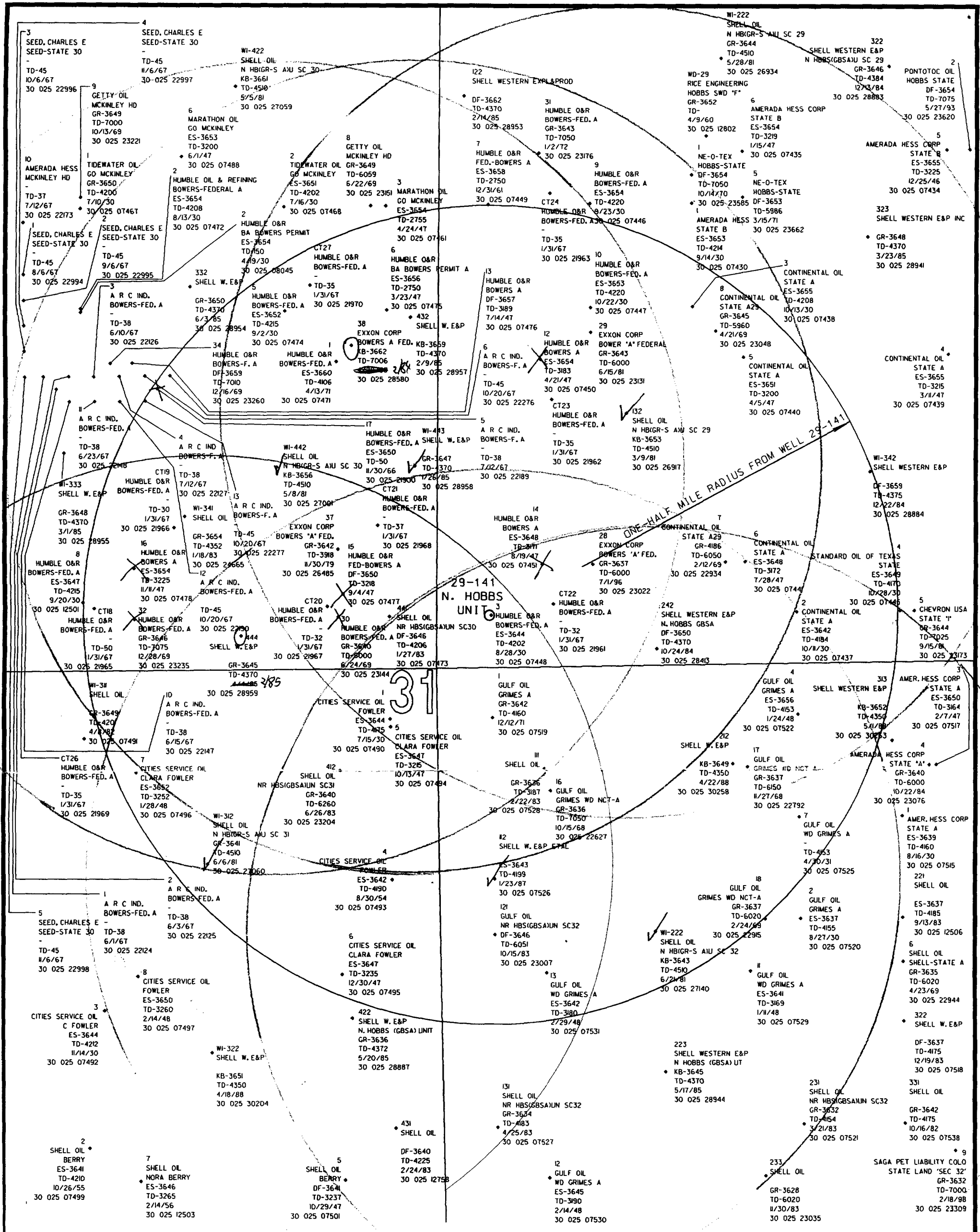
Completion type Perforations

Tubing size 2-7/8" lined with Fiberglass Epoxy set in a

Giberson Uni VI packer at ±3950 feet
 (brand and model)

Other Data

- Name of the injection formation San Andres
- Name of field or Pool Hobbs (Grayburg/San Andres) Pool
- Is this a new well drilled for injection? Yes ☐ No ☒
 If no, for what purpose was the well originally drilled? San Andres producer
- 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)
None
- Give the depth to and name of any overlying and/or underlying oil and gas zones (pools) in this area.
Grayburg - 3700, Glorieta - 5300



NOTE:
WELL DATA DERIVED FROM THE PETROLEUM
INFORMATION - DATA MANAGEMENT SYSTEM,
WELL DATA SYSTEM PREPARED FOR AMOCO.

Altura **Altura Energy Ltd.**
ENERGY, LTD.

Area of Review Plat
**NORTH HOBBS (GRAYBURG
SAN ANDRES) UNIT**
WELL NO. 29-141
T-18-S, R-38-E
Lea County, New Mexico

Scale: 1" = 600' 07-03-99 nm438a00.dgn - 11
Plat prepared by PJE Drafting, Inc.
For Horizon Survey, Inc.

PMX-199



STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
HOBBS DISTRICT OFFICE

GOVERNOR

POST OFFICE BOX 1980
HOBBS, NEW MEXICO 88241-1980
(505) 393-6161

11/12/99

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:

Altura Energy Ltd N Hobbs GB/SA Unit # 141-M-29-18s-38e
Operator Lease & Well No. Unit S-T-R 30-025-07448

and my recommendations are as follows:

Casing info does not agree w/ well file - 12 1/2"
Casing set @ 203' 4.5" FJ liner @ 3417'. Need
check info on this well before approval.

Yours very truly,

Chris Williams

Chris Williams
Supervisor, District 1

/ed