



OIL CONSERVATION DIVISION RECEIVED
GIANT EXPLORATION & PRODUCTION COMPANY

1993 SEP 15 AM 8 45

2200 Boomfield Highway
Post Office Box 2810
Farmington, New Mexico
87499-2810

FAX
505 505
326-3325 327-7987

September 13, 1993

New Mexico Oil Conservation Division
State Land Office Building
P.O. Box 2088
Santa Fe, New Mexico 87504

Subject: Central Bisti Unit Well No. WI-63
1980' FNL, 660' FWL
Sec. 8, T25N, R12W
San Juan County, New Mexico

Dear Sir:

Enclosed for your approval is our Application for Authorization to Inject for the above referenced well. Upon receipt, an Affidavit of Publication will be forwarded to you.

If you have any questions please call me at (505) 326-3325.

Sincerely,

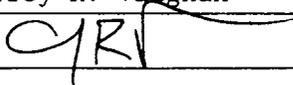
Diane G. Jaramillo

Diane G. Jaramillo
Administrative Manager

/dgj

Enclosure

APPLICATION FOR AUTHORIZATION TO INJECT

- I. PURPOSE: Secondary Recovery Pressure Maintenance Disposal Storage
Application qualifies for administrative approval? Yes No
- II. OPERATOR: Giant Exploration & Production Company
ADDRESS: P.O. Box 2810, Farmington, New Mexico 87499
CONTACT PARTY: Jeffrey R. Vaughan PHONE: (505) 326-3325
- III. WELL DATA: Complete the data required on the reverse side of this form for each well processed for injection. Additional sheets may be attached if necessary.
- IV. Is this an expansion of an existing project: Yes No
If yes, give the Division order number authorizing the project WFX-528
- V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.
- VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.
- VII. Attach data on the proposed operation, including:
1. Proposed average and maximum daily rate and volume of fluids to be injected;
 2. Whether the system is open or closed;
 3. Proposed average and maximum injection pressure;
 4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and
 5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).
- *VIII. Attach appropriate geological data on the injection zone including appropriate lithologic detail, geological name, thickness and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/1 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 source of drinking water.
- XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.
- XIV. Certification: I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.
- NAME: Jeffrey R. Vaughan TITLE: Vice President/Operations
SIGNATURE:  DATE: _____
- * 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 circumstance of the earlier submittal. _____

III. WELL DATA

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

- (1) Lease name; Well No.; Location by Section, Township, and Range; and footage location within the section.
- (2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.
- (3) A description of the tubing to be used including its size, lining material, and setting depth.
- (4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

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

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

- (1) The name of the injection formation and, if applicable, the field or pool name.
- (2) The injection interval and whether it is perforated or open-hole.
- (3) State if the well was drilled for injection or, if not, the original purpose of the well.
- (4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.
- (5) Give the depth to and name of the next higher and next lower oil or gas zone in the area of the well, if any.

XIV. PROOF OF NOTICE

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

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

- (1) The name, address, phone number, and contact party for the applicant;
- (2) The intended purpose of the injection well; with the exact location of single wells or the section, township, and range location of multiple wells;
- (3) The formation name and depth with expected maximum injection rates and pressures; and
- (4) A notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, PO Box 2088, Santa Fe, NM 87504-2088 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.

Giant Exploration & Production Company
Application for Authorization to Inject
Form C-108 Supplemental Information

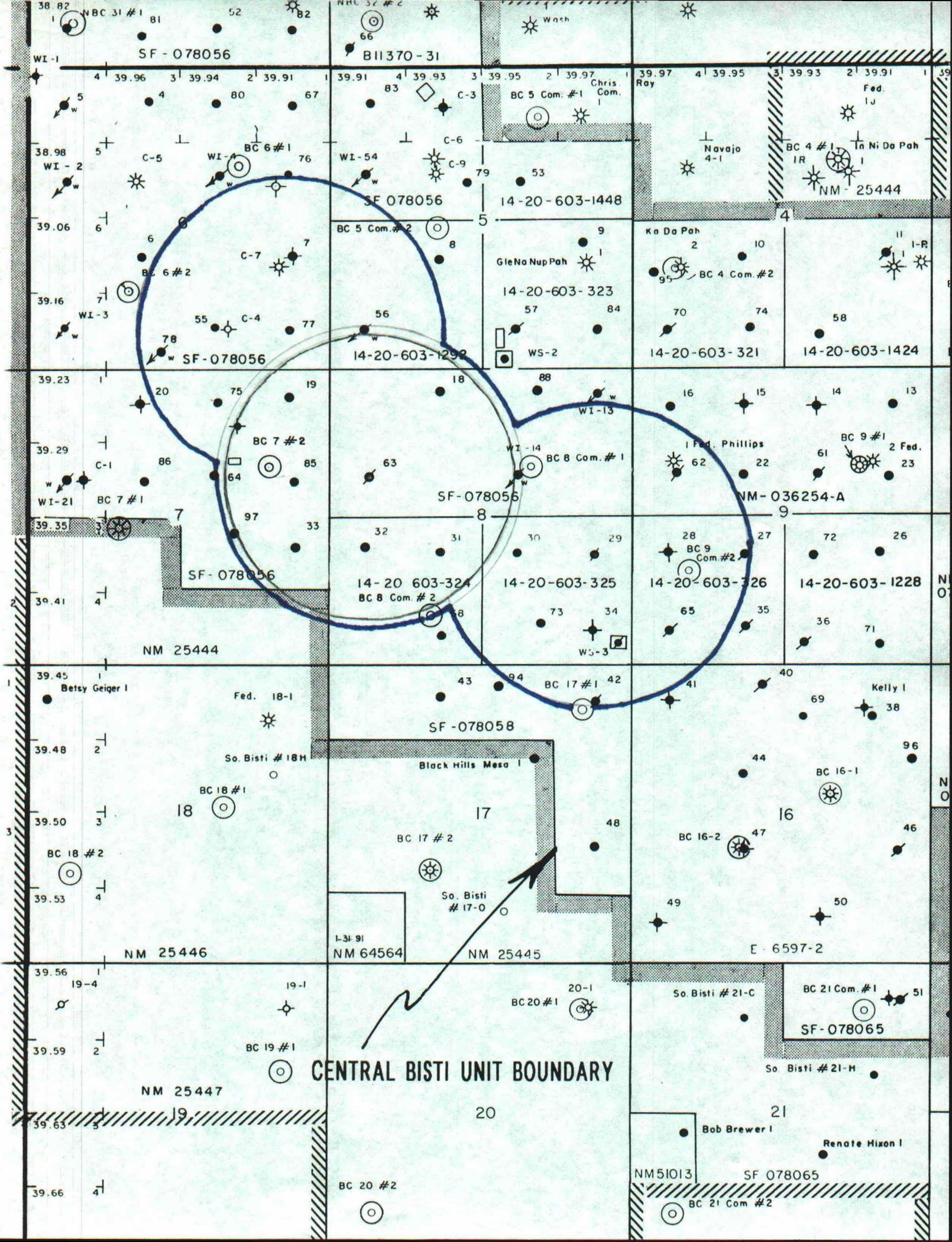
Central Bisti Unit Well No. WI-63
SW/4, NW/4, Sec. 8, T25N, R12W
San Juan County, New Mexico

- I. Shown on Application
- II. Shown on Application
- III. Well data attached
- IV. Shown on Application
- V. Area of review is shown on attached map
- VI. Information for wells located in area of review are as follows:

- Central Bisti Unit No. 18
- Central Bisti Unit No. 19
- Central Bisti Unit No. 31
- Central Bisti Unit No. 32
- Central Bisti Unit No. 33
- Central Bisti Unit No. 85

- VII.
 - 1. Proposed average injection rate is 600 bwpd, expected maximum injection rate is 1200 bwpd.
 - 2. This system will be closed.
 - 3. Average injection pressures are expected to be in the 958 - 963 psi range. Maximum injection pressure will be 963 psi.
 - 4. Refer to the attached water analysis report. Since the formation water to be encountered is primarily previously injected water, no problems are expected in mixing the two waters.
 - 5. This well is part of an extensive waterflood project active in the Central Bisti Unit since 1959. All produced water is reinjected into the oil productive Lower Gallup sand to maintain pressure. Injection into the Lower Gallup sand is for waterflooding, not disposal.

- VIII. The injection zone is the Lower Gallup sandstone. This zone is to be 10' in thickness with a top of 4806' as shown on the SP log previously submitted. No known sources of drinking water exist in this area. Water well drilling in this area has shown the Ojo Alamo to be dry.
- IX. The well will be acidized if required to maintain injection rate and pressure.
- X. Logs were previously submitted.
- XI. No known sources of drinking water exist in this area.
- XII. This well is part of the existing approved waterflood operation for the Central Bisti Unit. It is not a disposal well.
- XIII. Proof of notification is attached.
- XIV. Certification shown on Application.



CENTRAL BISTI UNIT BOUNDARY

SF-078056

B11370-31

14-20-603-1448

14-20-603-323

14-20-603-1292

14-20-603-324

14-20-603-325

14-20-603-326

14-20-603-1228

NM 25446

NM 64564

NM 25445

E-6597-2

NM 25447

NM51013

SF 078065

SF-078065

CENTRAL BISTI UNIT BOUNDARY

**Giant Exploration & Production
Company**
Well Bore Diagram

WELL NAME Central Bisti Unit Well No. WI-63
LOCATION 1980' ENL, 660' FWL **SECTION** 8 **T** 25 N **R** 12 W
COUNTY San Juan **STATE** New Mexico

SURFACE CASING

Hole Size: 12-1/4"
 Casing: 8-5/8", 24#, J-55
 Casing Set @ 329' with 200 sks
cement containing 2% CaCl.

FORMATION TOPS

<u>Pictured Cliffs</u>	<u>1174'</u>
<u>Point Lookout</u>	<u>3620'</u>
<u>Mancos</u>	<u>3792'</u>
<u>Upper Gallup</u>	<u>4682'</u>
<u>Lower Gallup</u>	<u>4788'</u>

CEMENT TOP 4010' (by T.S.)

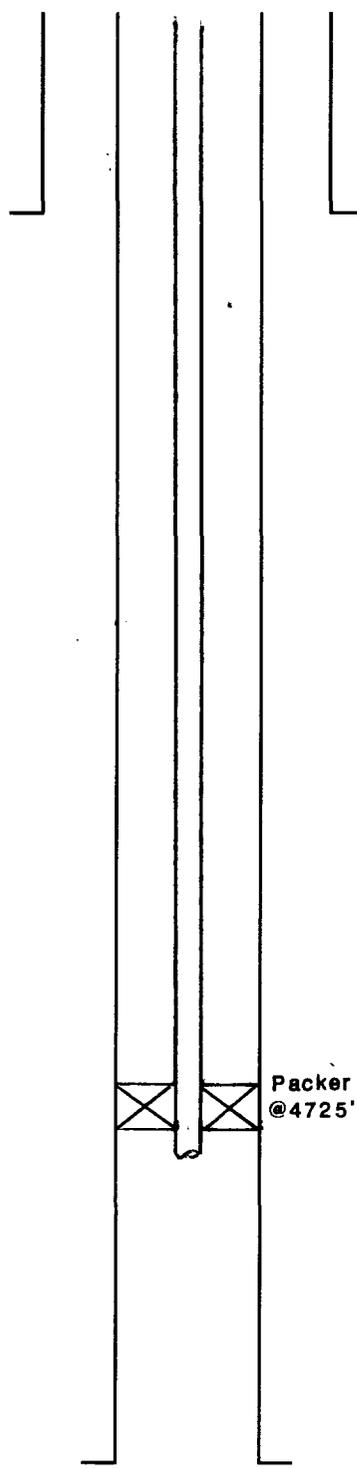
PERFORATIONS

4806'-16'

PBD 4830'

PRODUCTION CASING

Hole Size: 7-7/8"
 Casing: 5-1/2", 14#, J-55
 Casing Set @ 4949' with 200 sks
50/50 Pozmix containing 2%
gel.



GLE 6230'
KBE 6241'
DF _____

WELL HISTORY

Spud date: 7/13/56
 Original owner: Sunray Mid-Cont.
 IP 8/31/56 BOPD 357 BWPD -
 MCFD _____ GOR _____
 Completion Treatment: _____
Frac'd with 31,000 gal crude
and 15,000# sand.

CURRENT DATA

Pumping Unit _____
 Tubing 2-3/8" (148 jts.)
 Pump Size _____
 Rod string _____
 Remarks _____
Formerly N.M. Fed. "C" #16.
Proposed water injection
schematic.

Packer
@4725'

4950' TD

Date Last Revised: 9/7/93

WELL DATA SHEET

Well Name: Central Bisti Unit WI-63
Legal Description: 1980' FNL, 660' FWL
Sec. 8, T25N, R12W
San Juan County, N.M.
Well Type: Water Injection
Spud Date: 07-13-56
Surface Casing Hole Size: 12-1/4"
Surface Casing Size: 8-5/8"
Surface Casing Depth: 329'
Cementing Record: 200 sks.
Production Casing Hole Size: 7-7/8"
Production Casing Size: 5-1/2"
Production Casing Depth: 4949'
Cementing Record: 200 sks.
Perforation: 4806' - 4816'

Plug Back Depth: 4826'
Total Depth: 4950'

WELL DATA SHEET

Well Name: Central Bisti Unit #18

Legal Description: 660' FNL, 1980' FWL
Sec. 8, T25N, R12W
San Juan County, N.M.

Well Type: Oil Well

Spud Date: 07-07-56

Surface Casing Hole Size: 12-1/4"
Surface Casing Size: 8-5/8"
Surface Casing Depth: 204'

Cementing Record: 175 sks.

Production Casing Hole Size: 7-7/8"
Production Casing Size: 5-1/2"
Production Casing Depth: 4960'

Cementing Record: 200 sks.

Perforation: 4796' - 4808'
4823' - 4831'
4862' - 4870'
4878' - 4884'

Plug Back Depth: 4925'

Total Depth: 4960'

WELL DATA SHEET

Well Name: Central Bisti Unit #19
Legal Description: 660' FNL, 660' FEL
Sec. 7, T25N, R12W
San Juan County, N.M.
Well Type: Oil Well
Spud Date: 07-02-56
Surface Casing Hole Size: 12-1/4"
Surface Casing Size: 8-5/8"
Surface Casing Depth: 192'
Cementing Record: 175 sks.
Production Casing Hole Size: 7-7/8"
Production Casing Size: 5-1/2"
Production Casing Depth: 5000'
Cementing Record: 200 sks.
Perforation: 4804' - 4818'
4833' - 4840'
4852' - 4858'
4871' - 4877'
4886' - 4895'
Plug Back Depth: 4969'
Total Depth: 5000'

WELL DATA SHEET

Well Name: Central Bisti Unit #31

Legal Description: 1980' FSL, 1900' FWL
Sec. 8, T25N, R12W
San Juan County, N.M.

Well Type: Oil Well

Spud Date: 08-14-59

Surface Casing Hole Size: 12-1/4"
Surface Casing Size: 8-5/8"
Surface Casing Depth: 315'

Cementing Record: 200 sks.

Production Casing Hole Size: 7-7/8"
Production Casing Size: 4-1/2"
Production Casing Depth: 4953'

Cementing Record: 250 sks.

Perforation: 4782' - 4793'
4812' - 4827'
4832' - 4841'
4852' - 4860'
4866' - 4878'

Plug Back Depth: 4920'

Total Depth: 4953'

WELL DATA SHEET

Well Name: Central Bisti Unit #32
Legal Description: 1980' FSL, 660' FWL
Sec. 8, T25N, R12W
San Juan County, N.M.
Well Type: Oil Well
Spud Date: 07-10-56
Surface Casing Hole Size: 12-1/4"
Surface Casing Size: 8-5/8"
Surface Casing Depth: 308'
Cementing Record: 150 sks.
Production Casing Hole Size: 7-7/8"
Production Casing Size: 5-1/2"
Production Casing Depth: 5054'
Cementing Record: 400 sks.
Perforation: 4831' - 4852'
4860' - 4892'
4901' - 4910'
4914' - 4926'
Plug Back Depth: 4950'
Total Depth: 5055'

WELL DATA SHEET

Well Name: Central Bisti Unit #33
Legal Description: 1980' FSL, 660' FEL
Sec. 7, T25N, R12W
San Juan County, N.M.
Well Type: Oil Well
Spud Date: 08-07-56
Surface Casing Hole Size: 12-1/4"
Surface Casing Size: 8-5/8"
Surface Casing Depth: 346'
Cementing Record: 225 sks.
Production Casing Hole Size: 7-7/8"
Production Casing Size: 5-1/2"
Production Casing Depth: 4990'
Cementing Record: 200 sks.
Perforation: 4842' - 4858'
4888' - 4898'
4908' - 4916'
4923' - 4932'
Plug Back Depth: 4953'
Total Depth: 5020'

WELL DATA SHEET

Well Name: Central Bisti Unit #85
Legal Description: 1980' FNL, 660' FEL
Sec. 7, T25N, R12W
San Juan County, N.M.
Well Type: Oil Well
Spud Date: 09-10-83
Surface Casing Hole Size: 12-1/4"
Surface Casing Size: 8-5/8"
Surface Casing Depth: 216'
Cementing Record: 135 sks.
Production Casing Hole Size: 7-7/8"
Production Casing Size: 5-1/2"
Production Casing Depth: 5030'
Cementing Record: 550 sks.
Perforation: 4833' - 4843'
4862' - 4872'
Plug Back Depth: 4976'
Total Depth: 5030'

San. in testing laboratory, inc.

907 WEST APACHE • P O BOX 2079 • FARMINGTON, NEW MEXICO

PHONE
327-4966

Date June 10, 1977

Report to Hixon Development Company
Requested by A. Kuchera, Mgr. Sampled by Hixon Personnel
Project CBU #5 Location NW NW Sec. 6, T25N, R12W
Source of Material Lower Gallup Produced Water

Lab No. 24509 Water Analysis for Petroleum Engineering

TEST RESULTS

WATER ANALYSIS FOR PETROLEUM
ENGINEERING

<u>Constituent</u>		<u>Constituents</u>		
Total Solids	2263 ppm	<u>Cations</u>	Meg/L	ppm
	7.25	Sodium	29.3	674
Resistivity	2.94 ohms/meter @70°F	Calcium	2.3	45
Conductivity	3,400 micromhos/cm @ 70°F	Magnesium	0.5	6
		Iron	neg.	3
		Barium	0	0

<u>Comments</u>	<u>Anions</u>		
Essentially this is a 0.2% sodium sulfate solution.	Chloride	4.1	145
	Bicarbonate	4.0	244
	Carbonate	0	0
	Hydroxide	0	0
	Sulfate	24.0	1150

Copies to Hixon Development Co. (3)
P.O. Box 2810
Farmington, New Mexico 87401

Certified by:





GIANT EXPLORATION &
PRODUCTION COMPANY

2200 Bloomfield Highway
Post Office Box 2810
Farmington, New Mexico
87499-2810

505 326-3325 FAX
505 327-7987

OIL CONSERVATION DIVISION
RECEIVED

1993 OCT 22 09 08 43

October 19, 1993

New Mexico Oil Conservation Division
State Land Office Building
P.O. Box 2088
Santa Fe, New Mexico 87504

Subject: Central Bisti Unit Well No. WI-63

Dear Sir:

Enclosed please find the Affidavit of Publication for the
above referenced wells pertaining to our Application for
Authorization to Inject.

If you have any questions please call me at (505) 326-3325.

Sincerely,

Diane G. Jaramillo
Administrative Manager

/dgj

Enclosure

AFFIDAVIT OF PUBLICATION

COPY OF PUBLICATI

No. 32312

STATE OF NEW MEXICO,
County of San Juan:

C.J. SALAZAR being duly sworn, says: "That she is the CLASSIFIED MANAGER of The Farmington Daily Times, a daily newspaper of general circulation published in English in Farmington, said county and state, and that the hereto attached LEGAL NOTICE

was published in a regular and entire issue of the said Farmington Daily Times, a daily newspaper duly qualified for the purpose within the meaning of Chapter 167 of the 1937 Session Laws of the State of New Mexico for ONE consecutive (days) (/////) on the same day as follows:

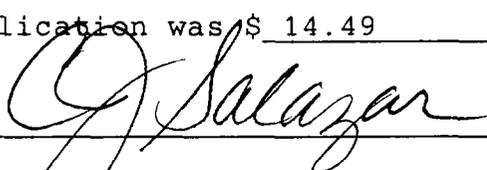
First Publication MONDAY, SEPTEMBER 20, 1993

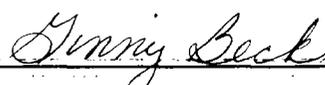
Second Publication _____

Third Publication _____

Fourth Publication _____

and the cost of publication was \$ 14.49


On 10-7-93 C.J. Salazar appeared before me, whom I know personally to be the person who signed the above document.


Notary Public, San Juan County,
New Mexico

My Comm expires: 4-2-96

LEGAL NOTICE

Giant Exploration & Production Company, P.O. Box 2810, Farmington, New Mexico 87499, (505) 326-3325, whose agent is Jeffrey R. Vaughan hereby notifies interested parties that the following well is to be converted to a water injection well. Injection will be into the Lower Gallup perforated interval from 4806' to 4816'. Maximum rate will be 1200 BWPD at less than 963 psi. Any request for information or objections should be filed with the Oil Conservation Division, State Land Office Building, P.O. Box 2088, Santa Fe, New Mexico 87504 within 15 days.

Central Bisti Unit Well No. WI-63 SW/4, NW/4 Sec. 8, T25N, R12W

Legal No. 32312 published in the Farmington Daily Times, Farmington, New Mexico on Monday, September 20, 1993.