



NEW MEXICO ENERGY, MINERALS  
& NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION  
2040 South Pacheco Street  
Santa Fe, New Mexico 87505  
(505) 827-7131

API# - 30-043-20801  
Federal Lease

FEB 14 1997  
OIL CON. DIV.  
DIST. 3

ADMINISTRATIVE ORDER SWD-654  
Pool Code - 96178  
Pool - S.W.D. Gallup

**APPLICATION OF U.S. ENERCORP, LLC FOR SALT WATER DISPOSAL,  
SANDOVAL COUNTY, NEW MEXICO.**

**ADMINISTRATIVE ORDER  
OF THE OIL CONSERVATION DIVISION**

Under the provisions of Rule 701(B), U.S. Enercorp, LLC made application to the New Mexico Oil Conservation Division on April 19, 1995, for permission to complete for salt water disposal its Chijulla '34' Well No. 14 located 660 feet from the South line and 1980 feet from the West line (Unit N) of Section 34, Township 21 North, Range 2 West, NMPM, Sandoval County, New Mexico.

**THE DIVISION DIRECTOR FINDS THAT:**

- (1) The application has been duly filed under the provisions of Rule 701(B) of the Division Rules and Regulations;
- (2) Satisfactory information has been provided that all offset operators and surface owners have been duly notified;
- (3) The applicant has presented satisfactory evidence that all requirements prescribed in Rule 701 will be met; and
- (4) No objections have been received within the waiting period prescribed by said rule.

**IT IS THEREFORE ORDERED THAT:**

The applicant herein, is hereby authorized to complete its Chijulla '34' Well No. 14 located 660 feet from the South line and 1980 feet from the West line (Unit N) of Section 34, Township 21 North, Range 2 West, NMPM, **Sandoval County, New Mexico**, in such manner as to permit the injection of salt water for disposal purposes into the **Gallup formation** at approximately **4182 feet to 4768 through 2 3/8-inch unlined tubing set in a packer located at approximately 4145 feet**. The tubing string shall be replaced in two years from the date of this permit with fiberglass tubing.

**IT IS FURTHER ORDERED THAT:**

The operator shall take all steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape to other formations or onto the surface.

Prior to commencing injection operations into the well, the casing shall be pressure tested from the surface to the packer setting depth to assure the integrity of said casing.

The casing-tubing annulus shall be loaded with an inert fluid and equipped with a pressure gauge at the surface or left open to the atmosphere to facilitate detection of leakage in the casing, tubing, or packer.

The injection well or system shall be equipped with a pressure limiting device which will limit the wellhead pressure on the injection well to no more than ~~836~~ **836 psi.**

The Director of the Division may authorize an increase in injection pressure upon a proper showing by the operator of said well that such higher pressure will not result in migration of the injected fluid from the Gallup formation. Such proper showing shall consist of a valid step-rate test run in accordance with and acceptable to this office.

The operator shall notify the supervisor of the Aztec district office of the Division of the date and time of the installation of disposal equipment and of the mechanical integrity test so that the same may be inspected and witnessed.

The operator shall immediately notify the supervisor of the Aztec district office of the Division of the failure of the tubing, casing, or packer in said well and shall take such steps as may be timely and necessary to correct such failure or leakage.

**PROVIDED FURTHER THAT,** jurisdiction of this cause is hereby retained by the Division for the entry of such further order or orders as may be deemed necessary or convenient for the prevention of waste and/or protection of correlative rights; upon failure of the operator to conduct operations in a manner which will ensure the protection of fresh water or in a manner inconsistent with the requirements set forth in this order, the Division may, after notice and hearing, terminate the injection authority granted herein.

The operator shall submit monthly reports of the disposal operations in accordance with Rule Nos. 706 and 1120 of the Division Rules and Regulations.

*Administrative Order SWD-654*

*U.S. Enercorp LLC*

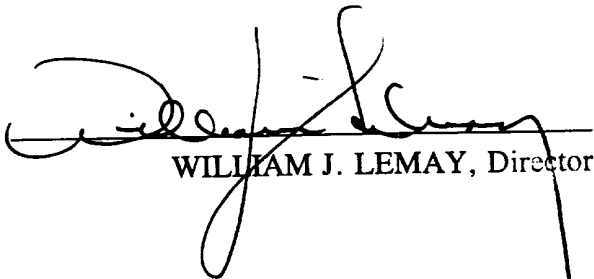
*February 12, 1997*

*Page 3*

---

The injection authority granted herein shall terminate one year after the effective date of this order if the operator has not commenced injection operations into the subject well, provided however, the Division, upon written request by the operator, may grant an extension thereof for good cause shown.

Approved at Santa Fe, New Mexico, on this 12th day of February, 1997.



WILLIAM J. LEMAY, Director

WJL/BES

xc: Oil Conservation Division - Aztec /  
US Bureau of Land Management -Farmington

# NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -

## ADMINISTRATIVE APPLICATION COVERSHEET

THIS COVERSHEET IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS

### Application Acronyms:

[NSP-Non-Standard Proration Unit] [NSL-Non-Standard Location]  
 [DD-Directional Drilling] [SD-Simultaneous Dedication]  
 [DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]  
 [PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]  
 [WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]  
 [SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]  
 [EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

### [1] TYPE OF APPLICATION - Check Those Which Apply for [A]

[A] Location - Spacing Unit - Directional Drilling  
☐ NSL ☐ NSP ☐ DD ☐ SD

Check One Only for [B] or [C]

[B] Commingling - Storage - Measurement  
☐ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM

[C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery  
☐ WFX ☐ PMX ☒ SWD ☐ IPI ☐ EOR ☐ PPR

RECEIVED  
 JAN 15 1997  
 OIL CON. DIV.  
 DIST. 3

### [2] NOTIFICATION REQUIRED TO: - Check Those Which Apply, or ☐ Does Not Apply

[A] ☐ Working, Royalty or Overriding Royalty Interest Owners

[B] ☒ Offset Operators, Leaseholders or Surface Owner

[C] ☒ Application is One Which Requires Published Legal Notice

[D] ☒ Notification and/or Concurrent Approval by BLM or SLO  
 U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office

[E] ☐ For all of the above, Proof of Notification or Publication is Attached, and/or,

[F] ☐ Waivers are Attached

### [3] INFORMATION / DATA SUBMITTED IS COMPLETE - Statement of Understanding

I hereby certify that I, or personnel under my supervision, have read and complied with all applicable Rules and Regulations of the Oil Conservation Division. Further, I assert that the attached application for administrative approval is accurate and complete to the best of my knowledge and where applicable, verify that all interest (WI, RI, ORRI) is common. I further verify that all applicable API Numbers are included. I understand that any omission of data, information or notification is cause to have the application package returned with no action taken.

Note: Statement must be completed by an individual with supervisory capacity.

BRIAN WOOD

*Brian Wood*

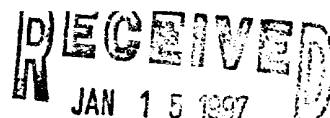
CONSULTANT

Print or Type Name

Signature

Title

12-31-96  
 Date



**APPLICATION FOR AUTHORIZATION TO INJECT**

OIL CON. DIV.  
DIST. 3

- I. PURPOSE: Secondary Recovery Pressure Maintenance XXX Disposal XXX Storage XXX  
Application qualifies for administrative approval? XXX Yes XXX No
- II. OPERATOR: U. S. ENERCORP, LLC  
ADDRESS: 1777 N.E. LOOP 410, SUITE 1512, SAN ANTONIO, TX. 78217  
CONTACT PARTY: BRIAN WOOD c/o PERMITS WEST, INC. PHONE: 505 466-8120
- 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: XXX Yes XXX No  
If yes, give the Division order number authorizing the project \_\_\_\_\_
- 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: BRIAN WOOD TITLE: CONSULTANT  
SIGNATURE: [Signature] DATE: 12-31-96
- \* 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. \_\_\_\_\_ IN OCD FILES

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

U. S. Enercorp, LLC  
Chijuilla 34 #14  
660' FSL & 1980' FWL  
Sec. 34, T. 21 N., R. 2 W.  
Sandoval County, New Mexico

PAGE 1

I. Purpose is water disposal.

II. Operator is: U. S. Enercorp, LLC

Phone is: (210) 829-4888

Address is: 1777 NE Loop 410, Suite 1512, San Antonio, Tx. 78217

Contact is: Brian Wood (Permits West, Inc.). Phone is (505) 466-8120.

III. A. (1) Lease is 400 acre BLM oil and gas lease NM-44551, which comprises all of the S2NW4 and S2 of Section 34, T. 21 N., R. 2 W. Well name and number is Chijuilla 34 #14. Well is located at 660' FSL and 1980' FWL Sec. 34, T. 21 N., R. 2 W.

A. (2) Surface casing (9-5/8", 36#, J-55) was set at 224' in a 13-3/4" hole and cemented to the surface (visually observed) with 150 sx (177 cu ft) Class B. Intermediate string (7", 23#, J-55) was set at 3798' in a 8-3/4" hole and cemented to surface (visually observed) with 250 sx (595 cu ft) Class A and 150 sx (175 cu ft) Class B. Liner (4-1/2", 10.5#, J-55) was set from 3618' to 4907' in a 6-1/4" hole and cemented to 3618' (checked by log) with 88 sx (235 cu ft) Class B.

A. (3) Tubing will be the 2-3/8" 6.5# unlined injection string which is already in the well. It will be set at 4,145' (disposal interval is 586' interval from 4,182' to 4,768'). It is anticipated this tubing string will be replaced by a fiberglass string in 1 to 2 years.

A. (4) Model TSN retrievable packer from Baker will be set at 4,145'.

B. (1) Disposal zone will be Gallup sandstone.

B. (2) Disposal interval will be 4,182' - 4,768'. It was perforated (0.39") with one shot per foot at 4182', 4200', 4252', 4278', 4310', 4315', 4324', 4340', 4356', 4406', 4504', 4586' 4590', 4768' in 1986.

B. (3) Well was spudded in November, 1985 and completed in January, 1986 as an oil well in the Rio Puerco Mancos field and pool.

B. (4) Gallup sandstone was perforated (0.39") with one shot per foot

U. S. Enercorp, LLC  
Chijuilla 34 #14  
660' FSL & 1980' FWL  
Sec. 34, T. 21 N., R. 2 W.  
Sandoval County, New Mexico

PAGE 2

at 4182', 4200', 4252', 4278', 4310', 4315', 4324', 4340', 4356', 4406', 4504', 4586' 4590', 4768' for a total of 14 perforations.

B. (5) Top of Gallup sandstone is 4006', which is over a thousand feet below the Menefee, which is the next closest producing interval. The closest well (Gary-Williams' San Isidro 26-7 in SWNE 26-20n-3w) from which the Menefee produced is over 6 miles southwest. Neither the Pt. Lookout (bottom of which at 3241' is 941' above the highest Gallup perforation) nor the Cliff House (bottom of which at 2389' is 1793' above the highest Gallup perforation) produce locally, though they are productive elsewhere in the basin.

IV. This is not an expansion of an existing injection project.

V. A map is attached showing all wells within a half mile (there are none, closest well is the 35-2 which is 4135' east) and within two miles (5 oil + 2 P&A). An arrow points to the Chijuilla 34 #14 well. Details on the wells are below, listed from closest to the most distant.

| <u>WELL</u>          | <u>SURFACE LOCATION</u> | <u>BHL</u>     | <u>STATUS</u> |
|----------------------|-------------------------|----------------|---------------|
| US Enercorp's 35-2   | SWSW 35-21n-2w          | NWNW 35-21n-2w | Oil Well      |
| US Enercorp's 35-1   | SWSW 35-21n-2w          | NWSW 35-21n-2w | Oil Well      |
| Gary-Williams' 28-15 | SWSE 28-21n-2w          | Same           | Oil Well      |
| Sam Gary's 4-14      | SESW 4-20n-2w           | Same           | P&A           |
| Gary-Williams' 4-1H  | SESW 4-20n-2w           | NESW 4-20n-2w  | Oil Well      |
| Pride's 5-2          | NWNE 5-20n-2w           | SESE 32-21n-2w | Oil Well      |
| Mesa's 9-1           | SWNE 9-20n-2w           | Same           | P&A           |

A map also shows all leases within a half mile (all Federal) and within two miles (all Federal or state). The only state lease is in 2-20n-2w. An arrow marks the Chijuilla 34 #14 well. Details on those leases within a half mile are:

U. S. Enercorp, LLC  
Chijuilla 34 #14  
660' FSL & 1980' FWL  
Sec. 34, T. 21 N., R. 2 W.  
Sandoval County, New Mexico

PAGE 3

| <u>AREA</u>        | <u>LESSOR</u> | <u>LESSEE</u> | <u>SERIAL #</u>      |
|--------------------|---------------|---------------|----------------------|
| S2NW4 & S2 Sec. 34 | BLM           | US Enercorp   | NM-44551             |
| NE4 Sec. 34        | BLM           | N/A           | Not currently leased |
| All Sections 3 & 4 | BLM           | Gary-Williams | NM-7765              |
| SE4 Sec. 33        | BLM           | Pride         | NM-42171             |

VI. This is the only well within a half mile. Profile is attached.

- VII. 1. Average injection rate = 80 bwpd. Maximum rate = 160 bwpd.  
2. System will be open (trucked to well). One 400 bbl fiberglass tank will be installed.  
3. Well is expected to take water without injection pressure based on under pressured zone and gravity.  
4. Water source will be U. S. Enercorp's 35-1 and 35-2 wells producing from Gallup. An analysis of receiving (34 #14) and injected (34 #14) waters is attached. Water from the Gallup sandstone will be disposed of in the Gallup sandstone. A summary follows:

| <u>Parameter</u> | <u>Drink. Water Stand.</u> | <u>34 #14</u> |
|------------------|----------------------------|---------------|
| pH               | 6.5-8.5                    | 7.76          |
| TDS              | 500                        | 26,257        |
| Calcium          | -                          | 152           |
| Magnesium        | -                          | 48.6          |
| Sodium           | -                          | 9900          |
| Bicarbonate      | -                          | 1079          |
| Sulfate          | 250                        | 75            |
| Chloride         | 250                        | 15,000        |
| Iron             | 0.3                        | 4.1           |
| Barium           | 1.0                        | 0.78          |

5. The Gallup is productive. The 34 #14 well initially produced 82 bopd and 35 Mcfd from the Gallup at its completion in 1986. Cumulative oil production up until it was shut-in in 1992 was ≈26,000 bbl. Analysis of disposal zone water is attached. Salient



points are the disposal zone water TDS exceeds drinking water standards by 52 times, chlorides by 60 times, and iron by 13 times. Closest fresh water zones currently are the San Jose and Animas. The Animas is the deeper of the two. Its bottom in the 34 #14 well is at 444', or 3738' above the highest Gallup perforation. Closest known water well is a windmill over 2 miles southwest in NE4 16-20n-2w which taps the Animas.

VIII. The Gallup sandstone consists of marine and nonmarine sandstones. It is fine to medium grained. It lies conformably on the Mancos shale. It is  $\approx 773'$  thick in the 34 #14 wellbore. Top is 4006' and bottom is  $\approx 4779'$ . Fracture gradient is 0.70 psi/ft.

Four zones (Pictured Cliffs, Cliff House, Menefee, and Pt. Lookout) above the Gallup are water bearing. Local TDS data from these zones is lacking. Basin wide, specific conductance of the water in these four zones ranges from 1,000  $\mu\text{mhos}$  near outcrops to 59,000  $\mu\text{mhos}$  in deeper gas prone areas. The closest aquifer below the Gallup is the Dakota sandstone. Specific conductance in the Dakota ranges from 2,000  $\mu\text{mhos}$  near recharge areas to 10,000  $\mu\text{mhos}$  in deep areas.

IX. No stimulation is planned. Formation will accept fluids from gravity flow. Well was fractured when completed with 79,000 gal foamed diesel and 155,000 pounds of sand.

X. DIL-GR, CNL-CAL, IES-GR, CDL, and Dual Caliper Temperature logs were run and are on file.

XI. Based on a June 17, 1996, field inspection and a review of the US Geological Survey and NM State Engineer's records, there are no water

U. S. Enercorp, LLC  
Chijuilla 34 #14  
660' FSL & 1980' FWL  
Sec. 34, T. 21 N., R. 2 W.  
Sandoval County, New Mexico

PAGE 5

wells within a mile.

XII. Geologic and engineering data at the NM Oil Conservation Div. and NM Institute of Mining & Technology have been examined. No evidence of open faults or other hydrologic connection between the Gallup and any underground source of water has been found.

XIII. Notice (this application) has been sent to the surface owner (BLM Albuquerque District) and Pride Energy Company. U. S. Enercorp and Pride Energy Company are the operators of all leases within a half mile.

Samuel Gary, Jr. & Associates  
 Chijulla 34-14 Wellbore Diagram  
 SESW Sec. 34 T21N R2W  
 Sandoval County, NM

Casing cemented w/ 150 sx  
 Class B containing 2% CaCl

Tubing Breakdowns (Bottom to Top)

|       |                        |         |
|-------|------------------------|---------|
| 1     | Seating Nipple         | 1.00    |
| 1     | Tubing Pump Barrel     | 10.00   |
| 1     | 2 3/8" Tubing Sub      | 4.00    |
| 3     | 2 3/8" Tubing          | 97.98   |
| 1     | 2 3/8" x 4 1/2" Anchor | 3.00    |
| 127   | Jts. 2 3/8" Tubing     | 4144.89 |
| TOTAL |                        | 4260.97 |

Sucker Rod Breakdowns

|    |                                    |  |
|----|------------------------------------|--|
| 1  | 1 1/4" x 14" Polished Rod w/ Liner |  |
| 1  | 3/4" x 8" Rod Sub                  |  |
| 70 | 3/4" Plain Sucker Rods             |  |
| 79 | 3/4" Scraper Sucker Rods           |  |
| 5  | 3/4" Sucker Rods                   |  |
| 1  | 3/4" Sucker Rod                    |  |
| 1  | 4" x 1 3/4" Pump Plunger           |  |

4 1/2" Casing Breakdown

| Interval    | Weight | Grade | Conn. |
|-------------|--------|-------|-------|
| 3618'-4907' | 10.5   | J-55  | ST&C  |

Cemented with 20 bbls preflush and 88 sx  
 Class B containing 1% CaCl 50 lb/sk  
 Spherelite, and additives.

75-90% cement bond from 4006'-4786'  
 20-70% cement bond from 4006'-3618'

Ground ele. 6933'

13 3/4" hole

9 5/8". 36 lb/ft surface csg @ 225'

8 3/4" hole

7" Casing Breakdown

| Interval | Weight | Grade | Conn. |
|----------|--------|-------|-------|
| 0'-3798' | 23     | J-55  | ST&C  |

Cemented with 250 sx foamed Class A cement,  
 150 sx Class B cement, and used 150 sx Class B  
 cement for cap cement.

TOC at Surface

Pumped 150 sx cap cement

Top of 4-1/2" Liner at 3618' ✓

7" Casing at 3798'

AC at 4148'

SN at 4260'

PBTD at 4838'

Marcos B perfs at 4182', 4200', 4252', 4278'  
 430'

Marcos C perfs at 435', 4324', 4340', 4356',  
 4406'

Marcos D perfs at 4504', 4586', 4590', 4768'

Energy Development Corporation  
 OPERATOR Chijulla 34 #14  
 WELL NO. Chijulla 34 #14

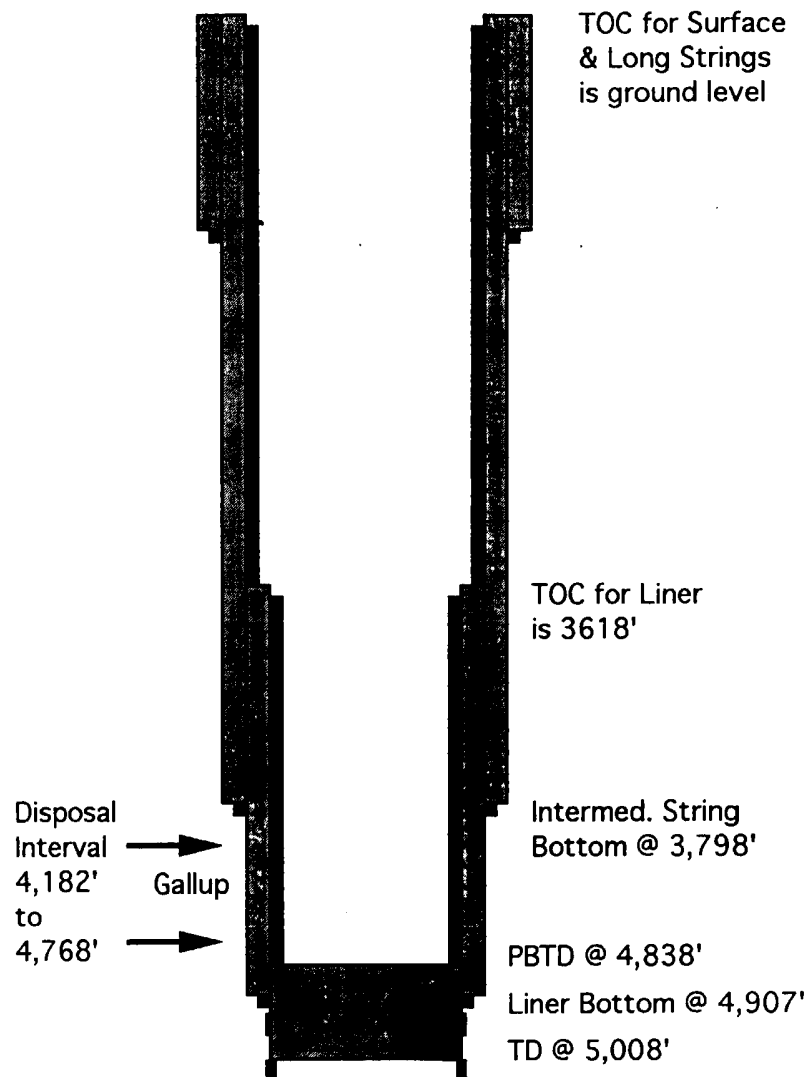
Chijulla 34 (NM-44453)  
 LEASE 660' FSL & 1980' FWL 34-21n-2w

FOOTAGE LOCATION

SECTION

TOWNSHIP

RANGE

SchematicWell Construction DataSurface Casing

Size 9-5/8" Cemented with 150 (Class B) sx.

TOC Surface feet determined by Visual

Hole Size 13-3/4" (0' - 224')

Intermediate Casing

Size 7" Cemented with 400 (Class A & B) sx.

TOC Surface feet determined by Visual

Hole Size 8-3/4" (0' - 3,798')

Long String

Size 4-1/2" Cemented with 88 (Class B) sx.

TOC 3,618' feet determined by Log

Hole Size 6-1/4" (3,618' - 4,907')

Total Depth 5,008' (PBTD 4,863')

Injection Interval

4,182' feet to 4,768' feet  
 (perforated or open-hole; indicate which)

## INJECTION WELL DATA SHEET

Tubing Size 2-3/8" 6.5# lined with steel (unlined) set in a  
Baker TSN packer at 4,145' (type of internal coating)  
 Other type of tubing / casing seal if applicable N/A

Other Data

1. Is this a new well drilled for injection?      Yes   X   No

If no, for what purpose was the well originally drilled? Drilled & produced briefly as Gallup oil well. SI in 1992 after 26,000 bbl of oil cumulative production.

2. Name of the injection formation Gallup

3. Name of Field or Pool (if applicable) Rio Puerco Mancos

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e., sacks of cement or plug(s) used. Gallup perf'ed. between 4,182' & 4,768' at 14 different levels (1 spf, 0.39" holes).

5. Give the names and depths of any over or underlying oil or gas zones (pools) in this area.  
None designated or producing, but oil & gas shows have been found above (e.g, Pictured Cliffs, Cliffhouse, Lewis, Menefee, Mancos) and below (Tocito & Juana Lopez) within a mile radius.



## A Versatile Packer for CO<sub>2</sub> and Water Injection

The Baker "TSN" Retrievable Packer and its companion tools provide flexibility, performance and dependability in designing your CO<sub>2</sub> and water injection programs.

As its name implies, the "TSN" is a versatile packer that once set allows tubing to be landed in tension, compression or neutral. It holds pressures from above and below, and can be reset while in the hole.

*Here are the features that make the "TSN" your ideal injection packer system:*

**Simple.** The packer has a minimum of moving parts and because the packing element is located at the bottom, only four parts are exposed to injection fluids.

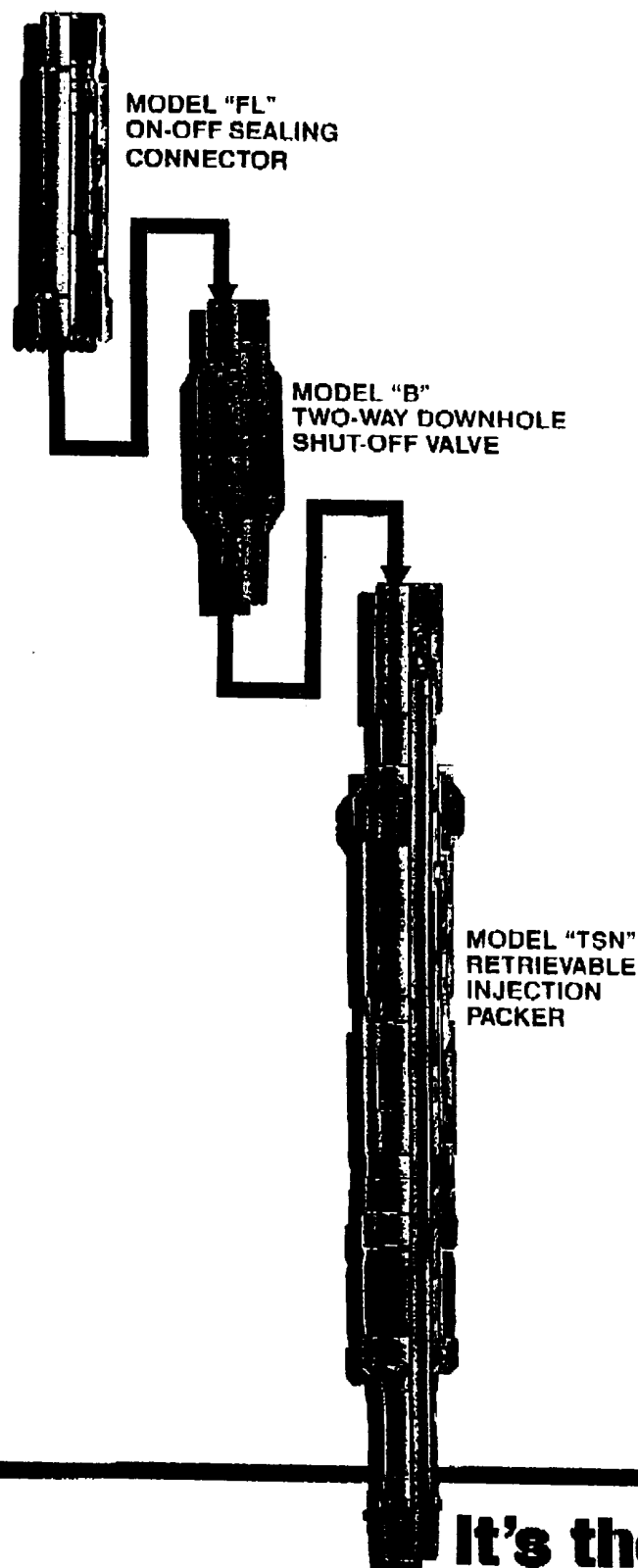
**Economical.** The TSN, because of its simplicity, is easy to maintain. It was designed to cut expensive repair costs by keeping all of the operating parts isolated from the corrosive environment of the well bore.

**Easy to Set.** The "TSN" is a tension-set packer. At setting depth, a simple ¼ turn left starts the setting action. Upstrain, slack-off and upstrain once again ensures a good pack-off. Tubing may now be landed in tension, compression or neutral.

**Easy to Release.** The "TSN" is released simply by pulling the tubing string and shearing the shear screws. Annular pressure **does not** place a load on the shear screws because the "TSN" design allows the loads to be carried into the casing through the slips. This feature ensures that the shear value can always be within the requirements of the tubing size, grade and depth without reducing the packer ratings.

The packer may also be moved up or down the hole and reset, without coming out of the hole, by releasing it rotationally (3-5 right hand turns).

**Versatile.** The "TSN" companion tools include the Model "B" Two-Way Downhole Shut-Off Valve for shut-in at packer depth, and the "FL" On-Off Sealing Connector which allows disconnect and retrieval of tubing above the packer.



It's the

707 NORTH LEECH

P.O.BOX 1499

HOBBS, NEW MEXICO 88240

COMPANY : GARY WILLIAMS OIL PRODUCER

DATE : 11-25-86

FIELD, LEASE &amp; WELL : RIO PUERCO-MESA VERDE

SAMPLING POINT: CHIJUILLA; 34-14; WATER TANK

DATE SAMPLED : 11-18-86

SPECIFIC GRAVITY = 1.016

TOTAL DISSOLVED SOLIDS = 26257

PH = 7.76

|                  |             | ME/L    | MG/L  |
|------------------|-------------|---------|-------|
| CATIONS          |             |         |       |
| CALCIUM          | (CA)+2      | 7.6     | 152.  |
| MAGNESIUM        | (MG)+2      | 4       | 48.6  |
| SODIUM           | (NA), CALC. | 430.    | 9900. |
| ANIONS           |             |         |       |
| BICARBONATE      | (HCO3)-1    | 17.7    | 1079. |
| CARBONATE        | (CO3)-2     | 0       | 0     |
| HYDROXIDE        | (OH)-1      | 0       | 0     |
| SULFATE          | (SO4)-2     | 1.5     | 75    |
| CHLORIDES        | (CL)-1      | 423     | 15000 |
| DISSOLVED GASES  |             |         |       |
| CARBON DIOXIDE   | (CO2)       | NOT RUN |       |
| HYDROGEN SULFIDE | (H2S)       | NOT RUN |       |
| OXYGEN           | (O2)        | NOT RUN |       |
| IRON(TOTAL)      | (FE)        |         | 4.1   |
| BARIUM           | (BA)+2      | .01     | .78   |
| MANGANESE        | (MN)        | NOT RUN |       |

IONIC STRENGTH (MOLAL) = .454

SCALING INDEX

TEMP

30C

86F

.519

CARBONATE INDEX

CALCIUM CARBONATE SCALING

LIKELY

CALCIUM SULFATE INDEX

CALCIUM SULFATE SCALING

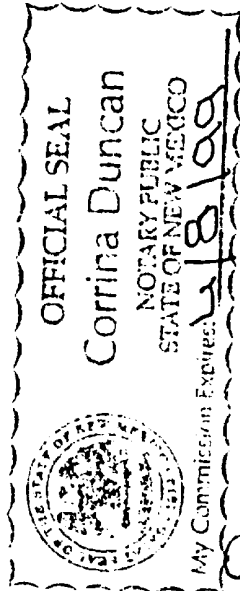
-56.

UNLIKELY

U. S. ENERCCORP, LLC is applying to convert the Chihulla 24-14-93 well to a water disposal well. Contact is Brian Wood, Permits West, Inc., 67 Verano Loop, Santa Fe, NM 87505. Phone number is (505) 344-8150. The Chihulla 24-14 is located at 2207 FSL & 1980' FM, Sec. 24, T. 21 N., R. 2 W., Sandoval County, NM. The well will dispose of water produced from surrounding oil wells into the Gallup formation at a depth of 4,182' to 4,786' at a maximum rate of 160 barrels of water per day. No pre-sertification is planned. Interested parties must file objections or requests for hearing with the NM Oil Conservation Division, P.O. Box 2086, Santa Fe, NM 87504-2086 within 15 days. Journal: November 6, 1996.

STATE OF NEW MEXICO  
County of Bernalillo SS

Bill Tafoya being duly sworn declares and says that he is Classified Advertising manager of The Albuquerque Journal, and that this newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3, Chapter 167, Session Laws of 1937, and that payment therefore has been made of assessed as court cost; that the notice, copy of which is hereto attached, was published in said paper in the regular daily edition, for 10 times, the first publication being of the 10 day of Nov, 1996, and the subsequent consecutive publications on \_\_\_\_\_, 1996



Sworn and subscribed to before me, a notary Public in and for the County of Bernalillo and State of New Mexico, this 10 day of Nov 1996

PRICE \$ .44 Statement to come at end of month.

CLA-22-A (R-1/93) ACCOUNT NUMBER 287019



UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

RECEIPT AND ACCOUNTING ADVICE

NO. 1074750

Subject: [Illegible]

Applicant:  
[Illegible]  
[Illegible]  
[Illegible]

Remitter:

Assignor:

|            |
|------------|
| SERIAL NO. |
| 1074750    |

REFER TO THE ABOVE CASE SERIAL NUMBER IN ALL CORRESPONDENCE. PLEASE INFORM THIS OFFICE OF ANY CHANGE IN ADDRESS.

NOTE: This notice is a receipt for monies paid the United States. If these monies are for required fees in connection with your application to lease, purchase, enter, or otherwise acquire an interest in public lands or resources, this receipt is not an authorization to utilize the land applied for and it does not convey any right, title, or interest in the land for which application is made.

|   |   |  |
|---|---|--|
| Is your RETURN ADDRESS completed on the reverse side?           | <b>SENDER:</b> <ul style="list-style-type: none"><li>• Complete items 1 and/or 2 for additional services.</li><li>• Complete items 3, and 4a &amp; b.</li><li>• Print your name and address on the reverse of this form so that we can return this card to you.</li><li>• Attach this form to the front of the mailpiece, or on the back if space does not permit.</li><li>• Write "Return Receipt Requested" on the mailpiece below the article number.</li><li>• The Return Receipt will show to whom the article was delivered and the date delivered.</li></ul> | I also wish to receive the following services (for an extra fee):<br>1. <input type="checkbox"/> Addressee's Address<br>2. <input type="checkbox"/> Restricted Delivery<br>Consult postmaster for fee. |
|   | 3. Article Addressed to:<br>John Pride<br>Pride Energy Company<br>PO Box 701602<br>Tulsa, Ok. 74170-1602  | 4a. Article Number<br>Z 766 607 036  |
| 5. Signature (Addressee)<br>[Signature]<br>6. Signature (Agent) | 4b. Service Type<br><input type="checkbox"/> Registered <input type="checkbox"/> Insured<br><input type="checkbox"/> Certified <input type="checkbox"/> COD<br><input type="checkbox"/> Express Mail <input type="checkbox"/> Return Receipt for Merchandise<br>7. Date of Delivery<br>8. Addressee's Address (Only if requested and fee is paid)   |  |

PS Form 3811, December 1991

U.S. GPO: 1992-323-402

DOMESTIC RETURN RECEIPT

District I  
PO Box 1980, Hobbs, NM 88241-1980  
District II  
PO Drawer DD, Artesia, NM 88211-0719  
District III  
1000 Rio Brazos Rd., Aztec, NM 87410  
District IV  
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico  
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION  
PO Box 2088  
Santa Fe, NM 87504-2088

Form C-104  
Revised February 21, 1994  
Instructions on back  
Submit to Appropriate District Office  
5 Copies

☐ AMENDED REPORT

I. REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT

|  |                                |                        |
|--|--------------------------------|------------------------|
| Operator name and Address<br>U. S. Enercorp, LLC<br>1777 NE Loop 410, Suite 1512<br>San Antonio, Tx. 78217 |                                | OGRID Number<br>154376 |
| Reason for Filing Code<br>CH   |                                |                        |
| API Number<br>30-0 43-20801  | Pool Name<br>Rio Puerco Mancos | Pool Code<br>52260     |
| Property Code<br>4466  | Property Name<br>Chijulla 34   | Well Number<br>14      |

II. Surface Location

|                    |               |                 |             |                 |                      |                           |                       |                        |                 |
|--------------------|---------------|-----------------|-------------|-----------------|----------------------|---------------------------|-----------------------|------------------------|-----------------|
| UL or lot no.<br>N | Section<br>34 | Township<br>21n | Range<br>2w | Lot Idn<br>SESW | Feet from the<br>660 | North/South Line<br>South | Feet from the<br>1980 | East/West line<br>West | County<br>Sand. |
|--------------------|---------------|-----------------|-------------|-----------------|----------------------|---------------------------|-----------------------|------------------------|-----------------|

Bottom Hole Location

|               |                       |                     |                     |                      |                       |                  |               |                |        |
|---------------|-----------------------|---------------------|---------------------|----------------------|-----------------------|------------------|---------------|----------------|--------|
| UL or lot no. | Section               | Township            | Range               | Lot Idn              | Feet from the         | North/South line | Feet from the | East/West line | County |
| Lee Code      | Producing Method Code | Gas Connection Date | C-129 Permit Number | C-129 Effective Date | C-129 Expiration Date |                  |               |                |        |

III. Oil and Gas Transporters

| Transporter<br>OGRID | Transporter Name<br>and Address | POD | O/G | POD ULSTR Location<br>and Description |
|----------------------|---------------------------------|-----|-----|---------------------------------------|
|                      |                                 |     |     |                                       |
|                      |                                 |     |     |                                       |
|                      |                                 |     |     |                                       |
|                      |                                 |     |     |                                       |
|                      |                                 |     |     |                                       |

IV. Produced Water

|     |                                    |
|-----|------------------------------------|
| POD | POD ULSTR Location and Description |
|-----|------------------------------------|

V. Well Completion Data

|           |                      |           |              |              |
|-----------|----------------------|-----------|--------------|--------------|
| Spud Date | Ready Date           | TD        | PSTD         | Perforations |
| Hole Size | Casing & Tubing Size | Depth Set | Sacks Cement |              |
|           |                      |           |              |              |
|           |                      |           |              |              |
|           |                      |           |              |              |

VI. Well Test Data

|              |                   |           |             |               |               |
|--------------|-------------------|-----------|-------------|---------------|---------------|
| Date New Oil | Gas Delivery Date | Test Date | Test Length | Tbg. Pressure | Csg. Pressure |
| Choke Size   | Oil               | Water     | Gas         | AOF           | Test Method   |

I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

Signature:

Printed name: Brian Wood

Title: Consultant

Date: 1-2-97

Phone: (505) 466-8120

OIL CONSERVATION DIVISION

Approved by:

Title:

Approval Date:

Previous Operator: Gary Williams Co. (OGRID# 22781).

Effective upon approval by OCD.

Previous Operator Signature

Printed Name  
Samuel Gary Jr.

Title  
Attorney-in-Fact  
Date  
1-8-97

[illegible]

T. 20 N., R. 2 W.

T. 20 N., R. 2 W.

