

**New Mexico Oil Company**  
UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
OMB No. 1004-0135  
Expires July 31, 1996

**SUNDRY NOTICES AND REPORTS ON WELLS**

*Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.*

**SUBMIT IN TRIPLICATE - Other Instructions on reverse side**

1. Type of Well  
☒ Oil Well ☐ Gas Well ☐ Other

SI

2. Name of Operator  
Echo Production, Inc.

3a. Address  
PO Box 1210, Graham, TX 76450

3b. Phone No. (include area code)  
(940) 549-3292

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)  
1880' FSL & 1880' FEL Sec 22 T 23S R 32E

5. Lease Serial No.  
NM 88163

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.

8. Well Name and No.  
Avion Federal #3

9. API Well No.  
30-025-34817

10. Field and Pool, or Exploratory Area  
Diamond Tail Delaware

11. County or Parish, State  
Lea County, NM

**12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA**

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other _____
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	_____
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input checked="" type="checkbox"/> Water Disposal	_____

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleate horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleation in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

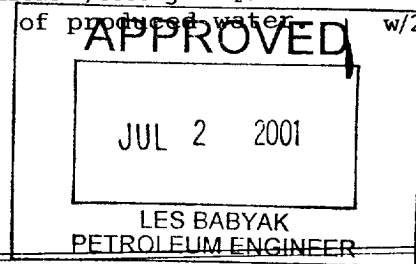
Present Well Data: 13 3/8" csg @ 615' cmt to surf, 8 5/8" csg @ 4838' cmt to surface, 4 1/2" csg @ 8828' cmt to 6834'. Perf 7086-98', 7122-24', 7534-41', 7578-86' & 7604-08'. Perf 7948-62' & 8074-80' shut off w/BP @ 7709'. Perf 8490-8508', 8534-48' & 8558-70' shut off w/BP @ 8152'.

Propose to: Set CIBP @ 7050' w/ 2 sx cmt. Perf sq. holes @ 5700' and circ cmt a minimum of 200' into the 8 5/8" / 4 1/2" annulus. Perf 5260-5302' & 5504-24' & treat w/3000 gal 7 1/2% HCl Set CIBP @ 7050' Run 2 3/8" PC tubing w/ packer to +5220' for disposal of produced water w/ 2 sx cmt

Copy of Form C-108 and supporting data is enclosed.

BLM Bond File No.: NM 2692

**CERTIFIED MAIL: 7000 0600 0028 5026 0965**



14. I hereby certify that the foregoing is true and correct  
Name (Printed/Typed)

Tom Golden

Title

Operations Manager

Signature

Date  
6/12/01

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved by

Title

Date

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

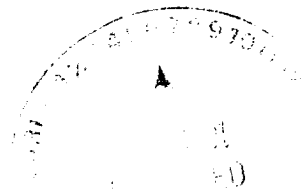
Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on reverse)

BUREAU OF LAND MGMT.  
ROSWELL OFFICE

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**APPLICATION FOR AUTHORIZATION TO INJECT**

- I. PURPOSE: Secondary Recovery Pressure Maintenance ☒ Disposal Storage  
Application qualifies for administrative approval? ☒ Yes ☐ No
- II. OPERATOR: Echo Production, Inc.  
ADDRESS: PO Box 1210, Graham, Texas 76450  
CONTACT PARTY: Tom Golden / Echo Production, Inc. PHONE: (940) 549-3292
- 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? ☐ Yes ☒ 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 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: Tom Golden TITLE: Operations Manager  
SIGNATURE: Tom Golden DATE: 4/25/01
- \* 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: \_\_\_\_\_

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## INJECTION WELL DATA SHEET

PERATOR: Echo Production, Inc.

WELL NAME &amp; NUMBER: Avion Federal #3

WELL LOCATION: 1880' FSL &amp; 1880' FEL

J

22

23S

32E

FOOTAGE LOCATION

UNIT LETTER

SECTION

TOWNSHIP

RANGE

WELLBORE SCHEMATICWELL CONSTRUCTION DATASurface Casing

Hole Size: 17 1/2" Casing Size: 13 3/8"

Cemented with: 600 sx. or ft<sup>3</sup>

Top of Cement: surface Method Determined: visual

Intermediate Casing

Hole Size: 11" Casing Size: 8 5/8"

Cemented with: 1475 sx. or ft<sup>3</sup>

Top of Cement: Surface Method Determined: visual

Production Casing

Hole Size: 7 7/8" Casing Size: 4 1/2"

Cemented with: 500 sx. or ft<sup>3</sup>

Top of Cement: 6834 Method Determined: CBL

Total Depth: 8950

Injection IntervalPerf 5260' to 5302' feet ~~xx~~ and 5504' - 5524'

(Perforated or Open Hole; indicate which)

INJECTION WELL DATA SHEETTubing Size: 2 3/8" Lining Material: Salta (plastic)Type of Packer: Model RPacker Setting Depth: +5220'

Other Type of Tubing/Casing Seal (if applicable): \_\_\_\_\_

Additional Data1. Is this a new well drilled for injection? Yes ☒ NoIf no, for what purpose was the well originally drilled? oil well2. Name of the Injection Formation: Delaware Sand - Bell Canyon Member3. Name of Field or Pool (if applicable): Diamondtail Delaware4. 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. perforated in multiple Delaware zones. Two BP's already set & will set another w/ cmt on top. See schematic.5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: No overlying oil or gas zones. Have underlying Delaware oil zones from 7086' to 8570' which were marginal.RECEIVED  
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# WELL COMPLETION SKETCHES

WELL

AVION FEDERAL #3

FIELD

DIAMOND TAIL DELAWARE

DATE

6/06/01



PRESENT COMPLETION



SUGGESTED COMPLETION

## PERMANENT WELL BORE DATA

1880' FSL & 1880' FEL SEC 22-23S-32E

LEA COUNTY, NM

ELEV. GL 3668' KB 3683'

13 3/8" 48# J @ 615'

CMT'D. w/ 600 SK. - CIRC.

8 5/8" 32# J @ 4838'

CMT'D. w/ 1475 SK. - CIRC.

T.O.C. 6834' - CBL

4 1/2" 11.6# J & N @ 8828'

CMT'D w/ 500 SK - TOC 6834'

## DATA ON THIS COMPLETION

PERF 7086-98, 7122-24, 7412-20,

7534-41, 7578-86 & 7604-08

B.P. @ 7709'

PERF 7948-62 & 8074-80

B.P. @ 8152'

PERF. 8490-8508'

PERF. 8534-48' & 8558-70'

PBTD 8766'

TD 8950

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# WELL COMPLETION SKETCHES

WELL AVION FEDERAL #3	FIELD DIAMOND TAIL DELAWARE	DATE 6/06/01
--------------------------	--------------------------------	-----------------

☐ PRESENT COMPLETION ☒ SUGGESTED COMPLETION

## PERMANENT WELL BORE DATA

1880' FSL & 1880' FEL SEC 22-23S-32E

LEA COUNTY, NM

ELEV. GL 3668' KB 3683'

13 3/8" 48# J @ 615'

CMT'D. w/ 600 SK. - CIRC.

TOC - 4 1/2" ± 4600'

8 5/8" 32# J @ 4838'

CMT'D. w/ 1475 SK. - CIRC.

T.O.C. 6834' - CBL

4 1/2" 11.6# J & N @ 8828'

CMT'D w/ 500 SK - TOC 6834'

CMT'D TO SURF

CMT'D TO SURFACE

TD 8950

## DATA ON THIS COMPLETION

2 3/8" PC tubing & packer @ ± 5220'

Disposal zone perf. 5260-5302'  
& 5509-24'

Perf @ 5700' and pump 450 SK CMT.  
From 5700' to 4600'

BP @ 7050' w/ 2 SK CMT.

PERF 7086-98', 7122-24', 7412-20',  
7534-41', 7578-86' & 7604-08'

B.P. @ 7709'

PERF 7948-62' & 8074-80'

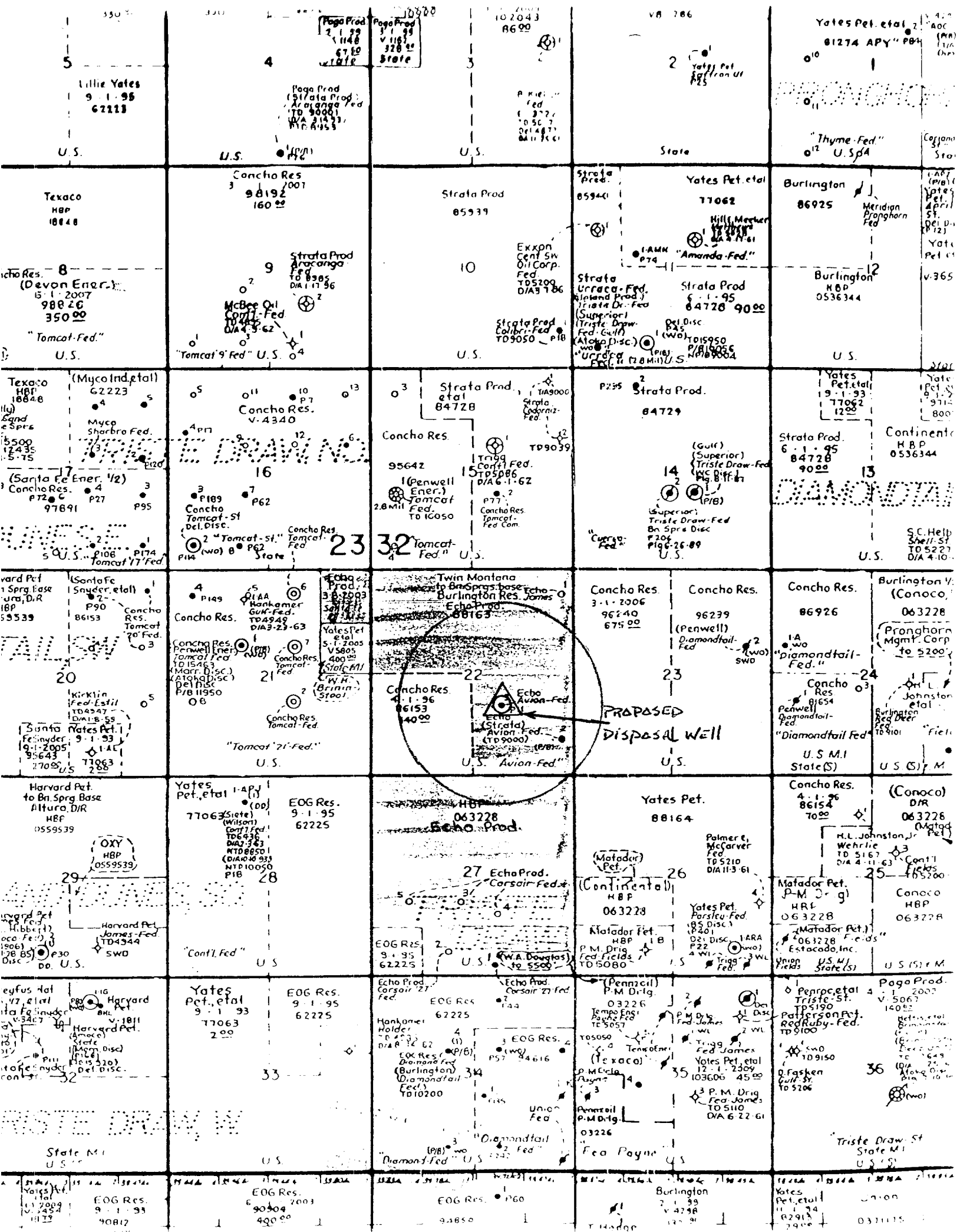
B.P. @ 8152'

PERF. 8490-8508'

PERF. 8534-48' & 8558-70'

PBTD 8766'

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## **Application For Authorization To Inject**

Echo Production, Inc.  
Avion Federal #3  
1880' FSL & 1800' FEL, Sec 22-23S-32E  
Lea County, New Mexico

### VI. "Data on all wells within area of review".

Avion Federal #2 (only well in one-half mile radius)

Operator – Echo Production, Inc.

Location – 990' FSL & 330' FEL, Sec 22-23S-32E

Drilled by Strata Production Company 2/27/97 and P&A'd

13 3/8" 48# casing at 620' with 800 sacks – circulated to surface

8 5/8" 24 & 32# casing at 4870' with 1656 sacks – circulated to surface.

TD 9000'. Cement plugs 8970-8770', 6100-5900', 4920-4820', 670'-580' and 30' to surface.

Re-entered by Echo Production, Inc. 2/3/99

Drilled out plugs to 8410'

4 1/2" 11.6# casing @ 8410' with 290 sacks. TOC 6900'

Perf Delaware 8195-8208' – oil well.

### VII. "Data on Proposed Operation"

1. Proposed average disposal rate 1200 BPD – maximum rate 2500 BPD
2. Closed system
3. Proposed average injection pressure initially 500# - maximum 1150#
4. Injection fluid is Lower Delaware sand, which is compatible with Upper Delaware water sand receiving fluid.
5. Chemical analysis of Delaware sand is attached. Do not have any analysis of disposal zone since it is not productive, but it would be similar.

### VIII. "Geologic Data"

Proposed injection zone is the Delaware Sand – Bell Canyon member. This member extends from 4868' to the top of the Delaware Sand – Cherry Canyon member encountered at 5970'. Two high porosity sand zones at 5260-5302' and 5504-24' will be utilized for disposal.

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There are no fresh water aquifers underlying the injection interval. Fresh water is found in the shallow Permian sands to a depth of 575'. These zones are isolated by the surface casing (615'), intermediate casing (4838') and the production casing.

IX. "Stimulation Program"

Will acidize the two sets of perforations individually with a total of 3000 gals 7½% HCl.

X. "Logging and Test Data"

Well was completed in Delaware sand for an IP of 11 BOPD and 113 BWPD on 3/25/00. Well was SI in Feb. 2001 due to marginal production. Well logs were previously submitted.

XI. "Fresh Water Analysis"

Only known fresh water well within one mile is located 600' FEL and 1200' FNL of Sec 21-23S-32E. A sample was taken from the tank at this well on 5/24/01 and the analysis is attached.

XII. All geologic and engineering data show no evidence of any type of connection between the disposal zone and the shallow aquifers. Several disposal wells already exist in comparable Delaware sands to the one being proposed.

XIII. "Proof of Notice"

There is only one additional leasehold operator within one-half mile of the proposed well. A copy of notification is enclosed. All land within one-half mile is Federal. A copy of the application and a Sundry Notice (enclosed) was mailed to the BLM.

A copy of the ad placed in the Hobbs News – Sun is also enclosed.

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**Champion**  
Technologies, Inc.

**Committed To Improvement**

## Water Analysis Report

**Customer:** ECHO PRODUCTION INC.

7/3/00

**Address:**

**City:**

**State:**

**Zip:**

**Attention:** TOM GOLDEN

**Date Sampled:** 6/30/00

**CC1:** TOM HONEWELL

**Date Received:** 6/30/00

**CC2:**

**SALESMAN NAME:** PRESTON SOUTHARD

**LEASE:** AVION

**SAMPLE POINT:** AVION #Battery  
Delaware Sand

**WELL:** AVION #1

**REMARKS:**

<b>CHLORIDE:</b>	168500
<b>SULFATE:</b>	207
<b>BICARBONATE:</b>	68
<b>CALCIUM:</b>	22536
<b>MAGNESIUM:</b>	4325
<b>IRON:</b>	49
<b>BARIUM:</b>	0
<b>STRONTIUM:</b>	
<b>MEASURED pH:</b>	5.6
<b>TEMPERATURE:</b>	85
<b>DISSOLVED CO2:</b>	130
<b>MOLE PERCENT CO2 IN GAS:</b>	0.50
<b>DISSOLVED H2S:</b>	
<b>PRESSURE (PSIA):</b>	100
<b>SODIUM (PPM):</b>	75365

**TOTAL DISSOLVED SOLIDS:** 271050

**IONIC STRENGTH:** 4.76

<b>CALCITE (CaCO3) SI:</b> -0.14	<b>CALCITE PTB:</b> N/A
<b>GYPSUM (CaSO4) SI:</b> -0.46	<b>GYPSUM PTB:</b> N/A
<b>BARITE (BaSO4) SI:</b> N/A	<b>BARITE PTB:</b> N/A
<b>CELESTITE (SrSO4) SI:</b> N/A	<b>CELESTITE PTB:</b> N/A

SI calculations based on Tomson-Oddo

*Julie  
Coxner*

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## Water Analysis Report

Customer: ECHO PRODUCTION INC.

5/29/01

Address:

City:

State:

Zip:

Attention: TOM GOLDEN

Date Sampled:

5/29/01

CC1: TOM HONNEWELL

Date Received:

5/29/01

CC2:

SALESMAN NAME: PRESTON SOUTHWARD

LEASE: JAMES

SAMPLE POINT:

WELL: FRESH WATER WELL

REMARKS:

CHLORIDE: 90

SULFATE: 179

BICARBONATE: 35

CALCIUM: 76

MAGNESIUM: 24

IRON: 16

BARIUM: 0

STRONTIUM:

MEASURED pH: 6.9

TEMPERATURE: 75

DISSOLVED CO<sub>2</sub>: 75

MOLE PERCENT CO<sub>2</sub> IN GAS: 0.50

DISSOLVED H<sub>2</sub>S:

PRESSURE (PSIA): 100

SODIUM (PPM): 25

TOTAL DISSOLVED SOLIDS: 445

IONIC STRENGTH: 0.01

CALCITE (CaCO<sub>3</sub>) SI: -2.44

CALCITE PTB: N/A

GYPSUM (CaSO<sub>4</sub>) SI: -2.11

GYPSUM PTB: N/A

BARITE (BaSO<sub>4</sub>) SI: N/A

BARITE PTB: N/A

CELESTITE (SrSO<sub>4</sub>) SI: N/A

CELESTITE PTB: N/A

SI calculations based on Tomson-Oddo

*Julie Gannon*

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2001 JUN 20

# Echo Production, Inc.

PO Box 1210 Graham, Texas 76450 (940) 549-3292 Fax: (940) 549-5162

June 12, 2001

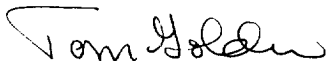
Concho Resources  
110 W. Louisiana  
Suite 410  
Midland, TX 79701

Re: Avion Federal #3  
1880' FSL & 1880' FEL  
Sec 22 T23S R32E  
Lea County, New Mexico

Enclosed is a copy of the Oil Conservation Division Form C-108 "Application For Authorization To Inject" which Echo Production, Inc. has recently filed. This will serve as written notification of Echo Production's intention of converting the Avion Federal #3 to a saltwater disposal well.

If you have any questions, please contact me at the above address or phone number.

Sincerely,



Tom Golden  
Operations Manager

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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 1  
\_\_\_\_\_ weeks.

Beginning with the issue dated

June 12 2001  
and ending with the issue dated

June 12 2001

Kathi Bearden

Publisher

Sworn and subscribed to before

me this 12th day of

June 2001

Jodi Benson

Notary Public.

My Commission expires  
October 18, 2004  
(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

June 12, 2001

NOTICE OF APPLICATION FOR  
AUTHORIZATION TO INJECT

Echo Production, Inc., P.O. Box 1210, Graham, Texas 76450,  
has applied to the New Mexico Oil Conservation Division for  
authorization to dispose of produced water into the Avion Fed-  
eral #3 located 1880' FEL Sec. 22-23S-32E, Lea County. The  
proposed perforations from 5260-5302' and 5504-24'. Maxi-  
mum injection rate will be 2500 BDP and maximum injection  
pressure 1150#. The contact person for Echo Production, Inc.,  
is Tom Golden at (940) 549-3292.

Requests for hearing from the affected parties or objections to  
any aspect of the application must be filed with the Oil Conser-  
vation Division, 1220 South St. Francis Dr., Santa Fe, New  
Mexico 87505, within 15 days of publication.  
#18231

02105309000

02547710

Echo Production, Inc.  
P.O. Box 1210  
GRAHAM, TX 76450

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**SENDER: COMPLETE THIS SECTION**

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Concho Resources  
110 W. Louisiana  
Suite 410  
Midland, Texas 79701

2. Article Number (Copy from service label)

7000 0600 0028 5026 09 58

PS Form 3811, July 1999

Domestic Return Receipt

102595-99-M-1789

**COMPLETE THIS SECTION ON DELIVERY**

A. Received by (Please Print Clearly) B. Date of Delivery

6-14-01

C. Signature

X

R. Jute

☐ Agent☐ AddresseeD. Is delivery address different from item 1? ☐ YesIf YES, enter delivery address below: ☐ No

3. Service Type

☒ Certified Mail☐ Express Mail☐ Registered☒ Return Receipt for Merchandise☐ Insured Mail☐ C.O.D.

4. Restricted Delivery? (Extra Fee)

☐ Yes

UNITED STATES POSTAL SERVICE



First-Class Mail  
Postage & Fees Paid  
USPS  
Permit No. G-10

• Sender: Please print your name, address, and ZIP+4 in this box •

Echo Production, Inc.  
PO Box 1210  
Graham, TX 76450

Attn: Ronda Wellman

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