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FORM C-108

Revised 7-1-81

STATE OF NEW MEXICO ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION
POST OFFICE BOX 2088 STATE LAND OFFICE HUILDING
SANTA PE, NEW MEXICO 87501

APPLICATION FOR AUTHORIZATION TO INJECT

- Storage XX Disposal Secondary Recovery Ι. Purpose: Pressure Maintenance Application qualifies for administrative approval? XXyes Ino
- WJC Inc. II. Operator: P. O. Box 3857 Midland, Texas 79702 Address: Contact party: M.L. Pierce (Peak Consulting Services) Phone: 505-392-1915

Well data: Complete the data required on the reverse side of this form for each well III. proposed for injection. Additional sheets may be attached if necessary.

- XX no IV. Is this an expansion of an existing project? yes If yes, give the Division order number authorizing the project
- Attach a map that identifies all wells and leases within two miles of any proposed ۷. 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:
    - Proposed average and maximum daily rate and volume of fluids to be injected; 1.
    - Whether the system is open or closed; 2.
    - 3.
    - Proposed average and maximum injection pressure; Sources and an appropriate analysis of injection fluid and compatibility with 4. 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/l or less) overlying the proposed injection zone as well as any such source known to be immediately underlying the injection interval.
  - Describe the proposed stimulation program, if any. IX.
- Attach appropriate logging and test data on the well. (If well logs have been filed Χ. with the Division they need not be resubmitted.)
- Attach a chemical analysis of fresh water from two or more fresh water wells (if XI. available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.
- Applicants for disposal wells must make an affirmative statement that they have XII. 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.
- Applicants must complete the "Proof of Notice" section on the reverse side of this form. XIII.
- XIV. Certification

I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

Rierde Name: Michael L Title Consultant 10/23/92 Date: Signature:

\* If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be duplicated and 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:
  - Lease name; Well No.; location by Section, Township, and Range; and footage location within the section.
  - (2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.
  - (3) A description of the tubing to be used including its size, lining material, and setting depth.
  - (4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

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

- B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.
  - (1) The name of the injection formation and, if applicable, the field or pool name.
  - (2) The injection interval and whether it is perforated or open-hole.
  - (3) State if the well was drilled for injection or, if not, the original purpose of the well.
  - (4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.
  - (5) Give the depth to and name of the next higher and next lower oil or gas zone in the area of the well, if any.
- XIV. PROOF OF NOTICE

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

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

- (1) The name, address, phone number, and contact party for the applicant;
- (2) the intended purpose of the injection well; with the exact location of single wells or the section, township, and range location of multiple wells;
- (3) the formation name and depth with expected maximum injection rates and pressures; and
- (4) a notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, P. O. Box 2088, Santa Fe, New Mexico 87501 within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

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NOTICE: Surface owners or offset operators must file any objections or requests for **peaning** is administrative applications within 15 days from the date this application was mailed to them.

FORM C - 108 cont.

Part III. A

- 1.) J. G. Cox No. 1 660' FNL and 1980' FWL Sec. 13 - T17S - R3BE Unit C Lea County, New Mexico
- 2.) See attached wellbore schematic.
- 3.) Propose to run 2 7/8" plastic coated tubing, and set within 100' of open hole interval.
- 4.) Propose to run a Baker Locset Packer as a seal, and load the backside with packer fluid.

Part III. B

- The injection interval is the San Andres and Bone Spring, and the well is located in the South Knowles Devonian Field.
- 2.) The injection interval is open hole at 5000 to 8360'.
- 3.) This well was originally drilled as an oil well.
- 4.) See wellbore schematic
- 5.) The Devonian produces in this field, and there is no shallower producing zone in the immediate vicinity.

#### Part VII.

- 1.) The proposed daily injection will be 2000 bbls. per day. The maximum will be 5000 bbls. per day.
- 2.) The system will be closed.
- 3.) The average injection pressure will be O(Vacuum). The maximum will not exceed the limits set forth by the OCD.
- 4.) The source of the injection water will be Devonian water from WJC operated wells.
- 5.) The injection interval is not productive with in 1 mile of the proposed well.

#### Part VIII

The injection interval is the San Andres and Bone Spring formations in the Knowles Devonian Field. and is composed of alternating beds of porous and tight dolomite in the San Andres section. The Bone Spring section is composed of permeable, fine to medium grained sands with alternating beds of limestone and porous dolomites. The injection interval is from 5000' to approximately 8360'. This entire area is overlain by the Quaternary Alluvium and caliche. The fresh water in the area comes from the Ogalalla aquifer. There are no fresh water zones below the San Andres section.

#### Part IX

The disposal interval will be treated with a breakdown acid job.

#### Part X

The loos have been previously submitted.

#### Part XI

The water analysis for fresh water wells within one mile of the proposed injection wells are attached.

### Part XII

We have examined all available geologic and engineering data, and find no evidence of open faults or any other hydrologic connection between the disposal interval and any underground source of drinking water.

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C - 108 PART V

WJC INCORPORATED

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## WJC INCORPORATED

Location of fresh water samples

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submitted by Mike Pierce		Received 10-23-92
Well No. See Below	)epth	Formation
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DATE JAKE HUMON 10-20-92 LEASE WELL NO. LOCATION 5.6. Cox Sec 13- T/15-M3BE wit C 660' FNL +nd 1980' FWL A+A 4-10-70 10 5x plug @ surface  $13\frac{3}{8}$  " casing set at 303' with 350 sx of \_\_\_\_\_ ceme Total Depth \_\_\_\_\_ Hole size \_\_\_\_\_ " Circulated <u>956</u> " casing set at <u>SUD</u> ' with <u>2600</u>' sx of \_\_\_\_\_ cemen Hole size 12/4 " Cement Circulated 25 SX plus @ 5000 25 5x plug @ 8360 25 5x plug @ 10100 5401 + pulled 5 1/2" (56 @ 10131 CIBP @ 12000' + 15' cmt  $\frac{5/2}{2}$  casing set at  $\frac{2203}{3}$  with 500 sx of \_\_\_\_\_ Total Depth 12243 Hole size 8 3/4 " Toc by TS OH 12203-12243 @ 10.275'

OPERATOR HAMON DATE AKE 10-20-92 WELL NO LOCATION 1 Sec 12 T125-238E Unit N LEASE Ä Cooper A+A 660' FSL AND 1980' FWL 6-10-1960 Set 10 5x plug @ suchare <u>[3%</u> casing set at <u>304</u> with <u>300</u> sx of \_\_\_\_\_ cem Total Depth \_\_\_\_' Hole size \_\_\_\_\_' Circulated 95/3 " casing set at 5000' with 2400 sx of \_\_\_\_\_ cemer. Hole size 12/4 " Concert Circulated set 50 5x plug @ 5045 - 4914 set 25 5x plug @ 9990 - 9748' Shot + pulled 5% csq @ 9880' Set 50 5x plug 17244 - 11802 Parf 12215-12240 12240-12250 5/2 " casing set at 12263' with 500 sx of \_\_\_\_\_ cemer Total Depth 12263' Hole size 8'/4' "

F+M Oil AND GAS COMPANY WELL MA LOCATION 2 SEC OPERATOR OATE 10-20-92 LEASE <u>Sec 12-7175-138E</u> unit 0 660' FSL + 1980' Fel SI (Devouring) <u>1378</u> " casing set at <u>365</u> ' with <u>425</u> sx of \_\_\_\_\_ cem Total Depth \_\_\_\_\_' Hole size \_\_\_\_\_' Circulated <u>95/3</u> " casing set at <u>4799</u>' with <u>4550</u> sx of \_\_\_\_\_ cemer Hole size 12/4 " Cement Circulated 592 CASING LEAK @ 6904 - 6967 w/ 450 5X <u>7</u> " casing set at <u>/2/55</u>" with <u>450</u> sx of \_\_\_\_\_ cemer Total Depth /226/ Hole size  $8^{3}/4$  . OH 12155-12261

F+M Oil MO 6AS COMPANY 10-00 WELL NO 1 LOCATION 1 Sec 13-T175-R38E With B 2.11 Ann 1980'FEL OPERATOR LEASE SWD well R-51 <u>[3%</u> casing set at <u>293</u> with <u>350</u> sx of \_\_\_\_\_ cema Total Depth \_\_\_\_\_ Hole size \_\_\_\_\_ Cmt Circulated 7" CS9 Set @ 4906 w/ 1500 5x cmt <u>95/8</u> " casing set at <u>4999</u> ' with <u>2780</u> sx of \_\_\_\_\_ cemen Hole size 12/4 " Concert circulated OH Injection 4999'- 9000'

Set so sx plug @ 9228- 9000 Cut mo pull she csq @ 9105' 5/2 " casing set at /2/47 ' with 500 sx of \_\_\_\_\_ cemen Total Depth /27/2 Hole size 81/4 . OH 12212 - 12147

F+M Dil AND 643 COMPANY WELL NO LOCATION OPERATOR DATE 10-20-92 LEASE HolloWAY Sec 13- TITS- R38E Unit 6 1980' FNL MAD 1980' FEL Well is ST 13% " casing set at 320 ' with 325 sx of \_\_\_\_\_ ceme Total Depth \_\_\_\_\_ Hole size \_/7/2 " Circulated set 25 5x plug 4050 - 5050 Set Cmt Ret @ 5331 + sgz w/ 40 sx + 50' on top of <u>958</u> " casing set at <u>4998</u> ' with <u>2150</u> sx of \_\_\_\_\_ cement Hole size 12/4 " Compart Circulated pert 5362 - 5420 Cmt plug @ 6950 - 6750 Cmt Plug @ 9360-9160 Set CIBP @ 9625 + 35' cmt Set curt let @ 9730 sq2 w/ 1550 sx Set curt let @ 9767 sq2 w/ 400 sx CSG collapses @ ± 11120' 5/2 " casing set at 12055" with 250 sx of \_\_\_\_\_ cemen Total Depth 12080 ' Hole size 874 " OH 12055- 12080

# OCD HOBBS OFFICE

**UCTX** #1892

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OPERATOR AEN Energy Inc DATE 10-20-92 LEASE WELL NO. V.F. Cox LOCATION Sec 13 TITS-R3BE wit F 1980' FNL + 1980' FWL producing from Advonim 12 3/4 " casing set at 365 ' with 450 sx of \_\_\_\_\_ ceme Total Depth \_\_\_\_\_ Hole size \_/S " Circulated  $8^{5}/8$  " casing set at <u>SO(7</u>" with <u>/SOD</u> sx of \_\_\_\_\_ cemen: Hole size ///// . Cement Circulated perf 12120 - 12134 S/z " casing set at 12/47 ' with 250 sx of \_\_\_\_\_ cemen Total Depth /2/68 ' Hole size \_ 7 78 " OH 12147-12168