RBDMS
Risk Based Data Management System
USER'S GUIDE

Version 4.0 - March 1995

APPENDIX A

RBDMS User's Guide which includes the RBDMS Administrative Guide

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MASTER

RBDMS

Risk Based Data Management System

USER'S GUIDE

Version 4.0 - March 1995

Developed by: The Underground Injection Practices Research Foundation

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RBDMS

Risk Based Data Management System

Version 4.0

Manual for

the Alaska Oil & Gas Conservation Commission;
the Mississippi State Oil & Gas Board;
the Montana Board of Oil & Gas Conservation; *and*
the Nebraska Oil & Gas Conservation Commission.

Prepared for

The Underground Injection Practices
Research Foundation of the GWPC

Prepared by

CH2M Hill, Inc.;
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March 1995

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RBDMS USERS MANUAL

Background

RBDMS is an oil & gas electronic data management system which stems from the idea developed from four previous projects conducted by the American Petroleum Institute (API) and the Ground Water Protection Council (GWPC). The first study, completed in February 1988, was titled "Oil and Gas Industry Water Injection Well Corrosion". It included a methodology for assessing the probability of contaminating underground sources of drinking water (USDWs) via Class II injection well operations. The report also evaluated the potential risk to USDW's on a national basis for each of the various oil and gas producing basins throughout the United States.

Using the methodology developed in the API study, a feasibility study was conducted to investigate if an electronic data management system could incorporate the methodology. The study was conducted in the Williston Basin, incorporating historical oil & gas producing and related injection well operations data from North Dakota, South Dakota, and Montana (September, 1989). This study demonstrated that the environmental risk probability methodologies previously used would be feasible for use in an electronic data management system. The study also listed the various benefits such a system would have to State regulators and industry, such as improved resource prioritization and management decisions based on environmental risk.

As a follow-up to the Williston Basin study, a second feasibility study was conducted to test the methodology on a much smaller basis. The follow-up project was conducted in the Dorr Field waterflood project in Rooks County Kansas, applying the earlier work to an existing oil & gas regulatory program. The Dorr field study resulted in a data base which was compatible with the forms, procedures, reports, software, and hardware currently being used by the Kansas Corporation Commission. Funding for this project was provided jointly by the DOE, API, and State of Kansas.

The RBDMS effort then continued through a grant from DOE with a multi-task project consisting of an inventory and needs assessment of 25 oil & gas producing states pertaining to oil & gas production/regulatory activities, state geological/hydrogeological considerations, Class II underground injection activities, electronic data management needs and functional requirements, environmental risk assessment and management objectives, resultant benefit of a RBDMS, and various information and data required for the design and development of a RBDMS in individual states.

The data collection effort also included detailed on-site visits by CH2M HILL to the Alaska Oil & Gas Conservation Commission, Mississippi State Oil & Gas Board, Montana Board of Oil & Gas Conservation, Nebraska Oil & Gas Conservation Commission, North Dakota Industrial Commission, and Texas Railroad Commission. During each visit, UIC program personnel and oil & gas representatives were interviewed. In addition, meetings

were held with representatives of other state and federal agencies such as the United States Geological Survey, Mississippi Department of Environmental Quality, State Geological Surveys, Texas Natural Resources Conservation Commission, Texas Water Development Board, Texas Bureau of Economic Geology, United States Environmental Protection Agency, American Petroleum Institute, oil & gas producing companies and others. The detailed assessment, including meetings with more than 150 individuals from various backgrounds, provided the RBDMS project team with an extremely detailed and unique understanding of states' needs in the area of electronic data management and other electronic information technologies.

Included in the inventory and needs assessment was a detailed evaluation of data, hardware, software and personnel needs of the states to determine the necessary applications (current and future) of the risk based data management system. The product of this task was a report titled "State Assistance with Risk-Based Data Management: Phase I Inventory and Needs Assessment of 25 State Class II Underground Injection Control Programs" (CH2M HILL and Digital Design Group, July 1992). In addition, prior to initiating the design effort, State officials of interested states met in conjunction with an Interstate Oil & Gas Compact Commission (IOGCC) meeting to further specify state priorities, which solidified the need for the system to be fully comprehensive, include national standards, and have flexibility to interface with other types of systems (e.g., GIS, imaging, electronic data exchange, etc.).

Following the inventory and needs assessment, a state selection and justification process was undertaken for the first group of states (Group-I states) selected for RBDMS implementation. Based on the information obtained during the inventory and needs assessment study, a ranking of states using a point system was developed. Group-I states selected included, Alaska, Mississippi, Montana, and Nebraska .

Upon the selection of the Group-I states chosen for initial implementation, the system design and implementation effort began. Next, a detailed conceptual implementation plan was prepared, which included the overall system design and specifications for implementing RBDMS in Group I states. The project also included the presentation of the technology employed with the RBDMS as part of the project's technology transfer. The main product of this phase of the project is a report that contains the design specifications and implementation plan for the Group-I states titled "Risk Based Data Management System Design Specifications and Implementation Plan for the Alaska Oil & Gas Conservation Commission; the Mississippi State Oil & Gas Board; the Montana Board of Oil & Gas Conservation; and the Nebraska Oil & Gas Conservation Commission" (CH2M HILL and Digital Design Group, September 1993). Additional state needs assessments were prepared for each of the Group I states by the CH2M HILL project team.

In 1994, DOE provided additional grant funds to the GWPC for completion the implementation of a RBDMS in the States of Alaska, Mississippi, Montana and Nebraska and provide for technology transfer of this effort. This development effort involved building a normalized and fully relational electronic risk based data management system

from scratch that is now being used in these four oil & gas producing states. The RBDMS in these initial states is complete as of March 1995, with training and maintenance ongoing thereafter. The benefits to the state regulatory agencies and oil and gas producing companies will be enhanced protection of ground water resources, as well as improved oil and gas production operations within affected states.

Overview

The RBDMS Users Manual has been broken down into four parts. These parts include (1) System Documentation (or Help Manual); (2) Screen Captures and Descriptions; (3) RBDMS Codes Table; and (4) Select Standard Reports.The intent of the Users Manual is to introduce the user to the multitude of options available in the system.

The first part of the Users Manual, System Documentation, is a compilation of the RBDMS On-Line Help system and includes descriptions of forms and reports, definitions, and the RBDMS Data Dictionary (i.e., listing of all data fields included in RBDMS). The System Documentation section is broken into three different sub-sections. The first sub-section "Overview", gives the user an introduction to the API Numbering Criteria as well as introduction to the Well Selection Criteria Screen, which is the main control screen in RBDMS, and the Record Selection Screen, which is used to sort data records through out the RBDMS program. The next sub-section, "Forms", introduces the user to each of the different data entry/inquiry forms used in RBDMS. The last section, "Reports", provides details on all standard reports included in RBDMS and gives details to the user on generating reports from the RBDMS program. Included with the manual is an Appendix showing an index on the data entry fields available in the program.

The Screen Captures Section contains actual snapshots of the RBDMS screens (i.e., forms) that users will view while manipulating the system and for data analysis. There are an assortment of snapshots presented in this section, including those of the cutomized RBDMS menus system, RBDMS custom utilities, and RBDMS special features. These snapshots should provide the user with a means to quickly review all the various modules of the RBDMS as a means of becoming familiar with the program.

A listing of the basic codes and code definitions currently loaded into the RBDMS program are presented in the Codes Table Section. In this section are the standardized codes listings on various data entries ranging from AAPG Basins to Casing Grades. As states add codes, print outs of up-to-date codes should probably be made to replace this section.

In the section on select standard reports, example reports generated by the RBDMS from a set of "Dummy" data are presented. Included in this section are some of the reports that may be used most frequently by states. The intent of this section is simply to provide users with some examples of standard RBDMS reports, the types of outputs the system provides, and the general layout of many of the more frequently used reports. This section does not include all standard RBDMS reports.

Assistance

In case problems are encountered or if questions arise, the following individuals would be appropriate for contacting:

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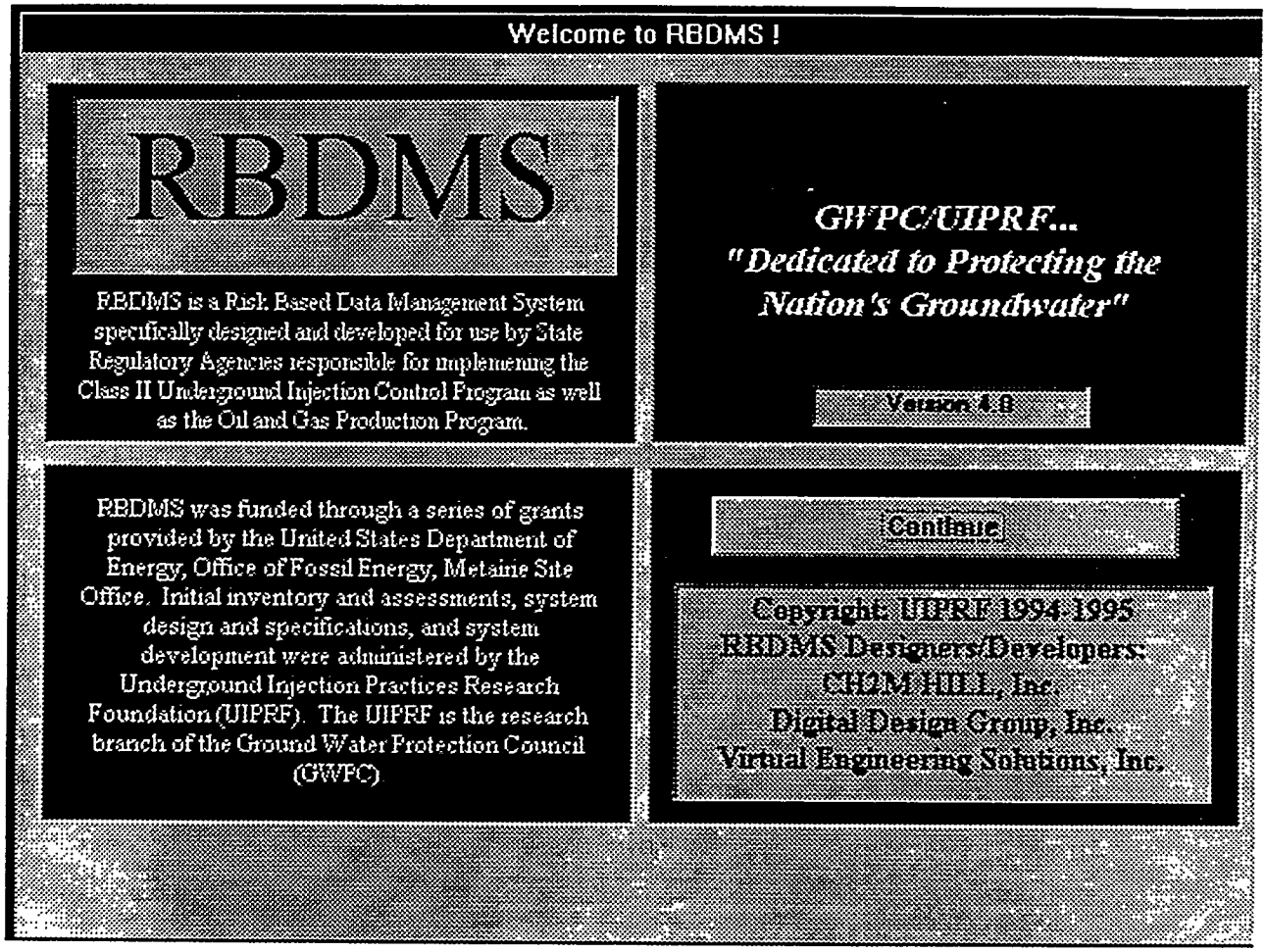
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System Documentation

RBDMS, ver. 4.0

Risk Based Data Management System

RBDMS



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and Virtual Engineering Solutions, Inc.

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Overview

RBDMS

The Risk Based Data Management System (RBDMS) was developed by the Underground Injection Practices Research Foundation (UIPRF) through a grant from the United States Department of Energy (DOE) to assist State Oil & Gas Programs in developing an effective method of maintaining and tracking information on oil & gas producing wells and Class II injection wells associated with production operations. The system provides State personnel with a means of evaluating the potential environmental risks of Underground Sources of Drinking Water (USDW) becoming contaminated due to underground injection operations. It also provides a system for the use of a formal environmental risk management program in prioritizing limited personnel and financial resources available to each state.

Finally, RBDMS provides comprehensive data on wells and well activities throughout the states. This information can be used by either state personnel or operators to aid in well permitting activities (e.g., area of reviews), monitoring/reporting, compliance reviews, mechanical integrity testing, plugging and abandonment operations, and many other functions common to both producing and injection wells.

API Well Number

API Well Number

The "API Well Number" (API_WELLNO) data field is described in detail in API Bulletin D12A. The 14-digit API well number serves as the unique identifier for each individual well for RBDMS. It accounts for the state and county in which the well is located, sidetracks, and multiple completions. Furthermore, it is important to understand that the first 10 digits of the API Well Number are uniquely related to a distinct surface location and alterations to this philosopy do not coincide with the D12A standard. A basic definition of the API Well Number is as follows:

1st and 2nd digits: State Code

A numeric code used to identify each of the states. Refer to API Bulletin D12A for proper codes. Examples: Alabama (01), Texas (42). Use preceding zero when necessary and appropriate.

3rd through 5 digits: County Code

A numeric code used to identify each of the counties within a state. In certain instances these codes are assigned to county equivalent areas where no counties exist. Such is the case of offshore drilling where areas have been designated as county equivalents, as well as in the State of Alaska where USGS quadrangles have been designated as county equivalents. Refer to Bulletin D12A for proper codes. Examples of counties in Texas: Anderson (001), Chambers (071), & Grayson (181). Use preceding zero when necessary and appropriate.

6th through 10th digits: Unique Well Number

A numeric code used to uniquely identify each well by its surface location. These numbers are assigned serially within each county within each state, and must not be duplicated within a county. When two or more wells are drilled from the same surface location by means of sidetracking from the original hole, the same unique number is assigned to each of these holes-in-the-ground. Using preceding zeros when necessary.

11th through 12th digits: Sidetracks and Multilaterals

A Sidetrack or multilateral hole is a drilling effort in which an additional hole is drilled by leaving a previously drilled hole at some depth less than total depth and cutting new footage. It is a section of new hole drilled at an angle from a point in a pre-existing hole to a new objective bottom-hole location (target).

In order for a sidetrack hole to be related to its original hole and be uniquely identified, a numeric code is used in the 11th and 12th digits of the API well number. Until a well has been sidetracked, this code will always be 00. When a well has been sidetracked, the code will change to "01". The code will remain "01" in all succeeding hole change operations to the well until the hole is sidetracked again, then the code will change to "02" and so on.

This sidetrack identity does not apply to portions of a hole which are purposely detoured around junk, redrill of a lost hole, or straightening of a crooked hole. In addition, the data maintained in the record for the sidetrack or multilateral (i.e., when the 11th and 12th digits are not "00").

With the increase in construction of wells with multilaterals, some states have already established numbering conventions for these the 11th and 12th digits. For instance, the AOGCC uses a "6" as the 11th digit for wells permitted as multilaterals. This approach easily facilitates tracking of multilateral well data and helps to identify a API Well Numbers that have associated multilateral data. Other states are also considering this same approach to enhance well tracking capabilities.

13th through 14th digits: Hole Change (Optional)

The current American Petroleum Institute (API) standard for API Well Numbers (D12A) includes a 12-digit number. However, the many information companies

currently utilize a 14-digit number to help track hole change information on wells. In addition, the API seems to favor a 14-digit numbering system for purposes of tracking, but has not enacted on expanding the standard because of potential concerns regarding the use and application of these digits.

For RBDMS, capacity to maintain a 14-digit API Well Number has been included. These last two digits are completely optional and are not required for operation of the system. However, states may use these additional digits to better track well data informally or for downloading data and information from other sources.

In general, hole change is re-entering a previously drilled hole for the purpose of either recompleting the well, drilling it deeper, or sidetracking from the original hole. With the absence of an official standard, however, states should be aware that use of these last two digits may vary nationally and between information companies.

Well Selection Criteria Form

The Well Filter form is used to select wells to be edited and/or reviewed. The text and combo box fields on the top left of the form are used to enter criteria for selecting the wells of interest. If the Edit button has been selected the wells that match the current selection criteria are listed in the subform on the bottom part of the form and related forms will automatically position on the record relating to the currently selected well. If the Add button is selected then related forms will open on a new record with the currently selected API Well Number as a default if applicable. If the Inquiry button is selected the behavior will be the same as Edit except that records cannot be edited or added.

To edit information in the database perform the following steps:

1. Click the Edit button on the top right of the form

2. Enter the selection criteria for the well(s).

3. Click the well to be edited.

4. Click the appropriate button for the type of data to be edited (e.g. Companies, UIC Permit, etc.).

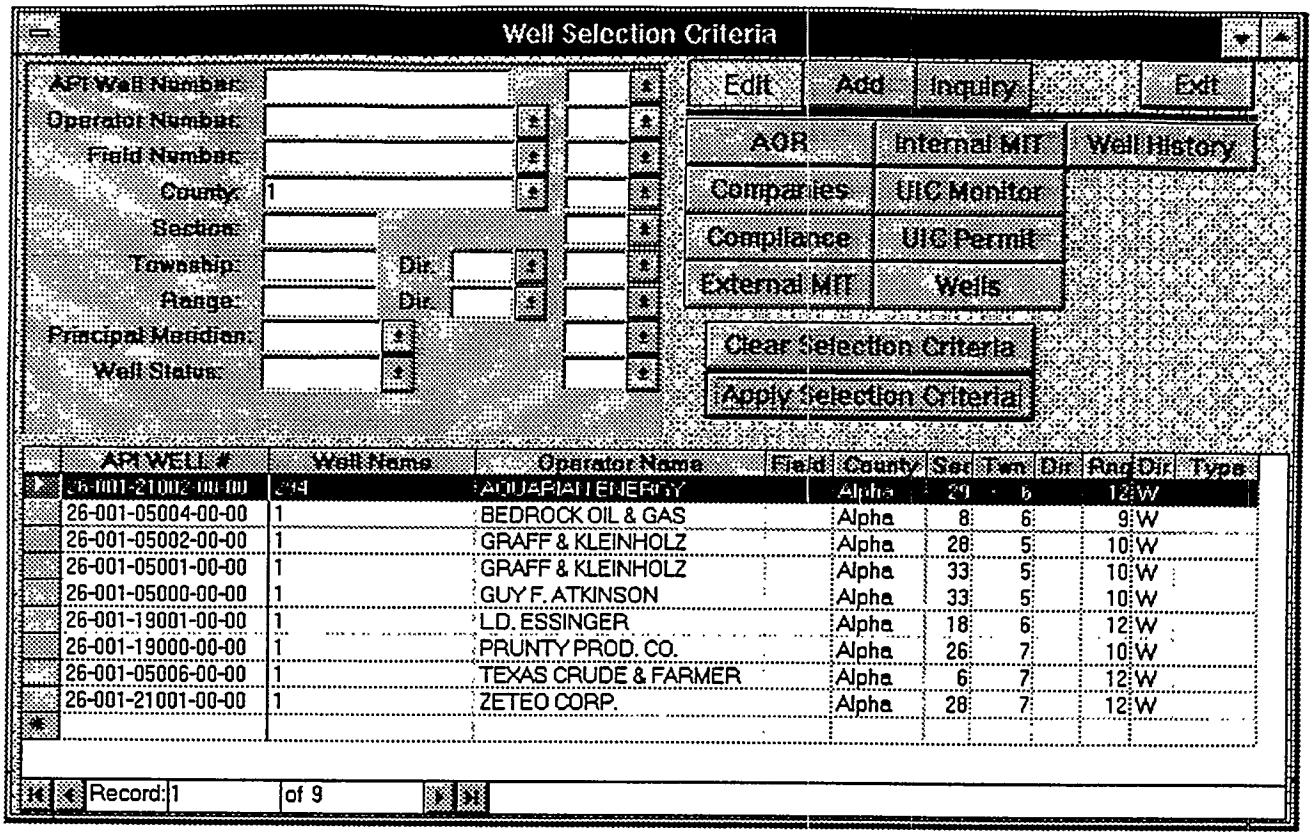
To add new information in the database perform the following steps:

1. Click the Add button on the top right of the form

2. Optionally enter selection criteria and select a well record.

2. Click the appropriate button for the type of data to be edited (e.g. Companies, UIC Permit, etc.).

The Well filter subform has been programmed to resize to match the main form whenever a resize event occurs on the main form. You can also adjust the column widths in the subform by positioning the cursor between columns and dragging. The window size and column sizes are stored in the RBDMS.INI file when you exit RBDMS and are automatically restored when you reload the program.



API Well Number

If you know the API Well Number you can select an individual well by entering the value here.

Operator Number

Click the combo box arrow to select the appropriate operator ID or type the ID directly.

Field Number

Click the combo box arrow to select the appropriate Field Number or type the number directly.

County

Click the combo box arrow to select the appropriate county code or type the county code directly.

Section

Enter the section number to select.

Township

Enter the township to select.

Township Dir.

Select the appropriate direction from the combo box list or enter it directly.

Range

Enter the range to select.

Range Dir.

Select the appropriate direction from the combo box list or enter it directly.

Principal Meridian

Select the appropriate principal meridian from the combo bo or enter it directly.

Well Status

Select wells that are active or inactive. Select the status code from the combo box list or enter the code directly.

Order By

The combo boxes next to each selection criteria field allow you to specify the order that the wells will be displayed in the subform on the bottom half of the form. Click the down arrow on the combo box next to the field you wish to sort by and choose "Ascending" or "Descending" sort order. You can use up to three fields for sorting by using different values for sorting priority. For example you could sort County by "Ascending 1" and then Section by "Descending 2".

Edit

Clicking the edit button changes the forms background color to green and opens subsequent forms with edit/update enabled. This button will not be enabled if you don't have update/edit access rights.

Add

Clicking the add button changes the forms background color to green and opens subsequent forms with edit/update enabled and the current record position on a new record. This button will not be enabled if you don't have update/edit access rights.

Inquiry

Clicking the inquiry edit button changes the forms background color to red and opens subsequent forms with edit/update disabled.

Exit

Clicking this button closes RBDMS and exits Microsoft Access.

AOR

Clicking this button opens the Area of Review Form.

Companies

Clicking this button opens the Company Form.

Compliance

Clicking this button opens the Compliance Form.

External MIT

Clicking this button opens the External Mechanical Integrity Test Form.

Internal MIT

Clicking this button opens the Internal Mechanical Integrity Test Form.

UIC Monitor

Clicking this button opens the UIC Monitoring Results Form.

UIC Permit

Clicking this button opens the UIC Permit Form.

WELLS

Clicking this button opens the Well Form.

Well History

Clicking this button opens the Well History Form.

Clear Selection Criteria

Clicking this button sets all of the selection criteria fields to blank.

Apply Selection Criteria

Clicking this button causes the form to build a new query based on the criteria entered in the form and to requery the subform at the bottom half of the window.

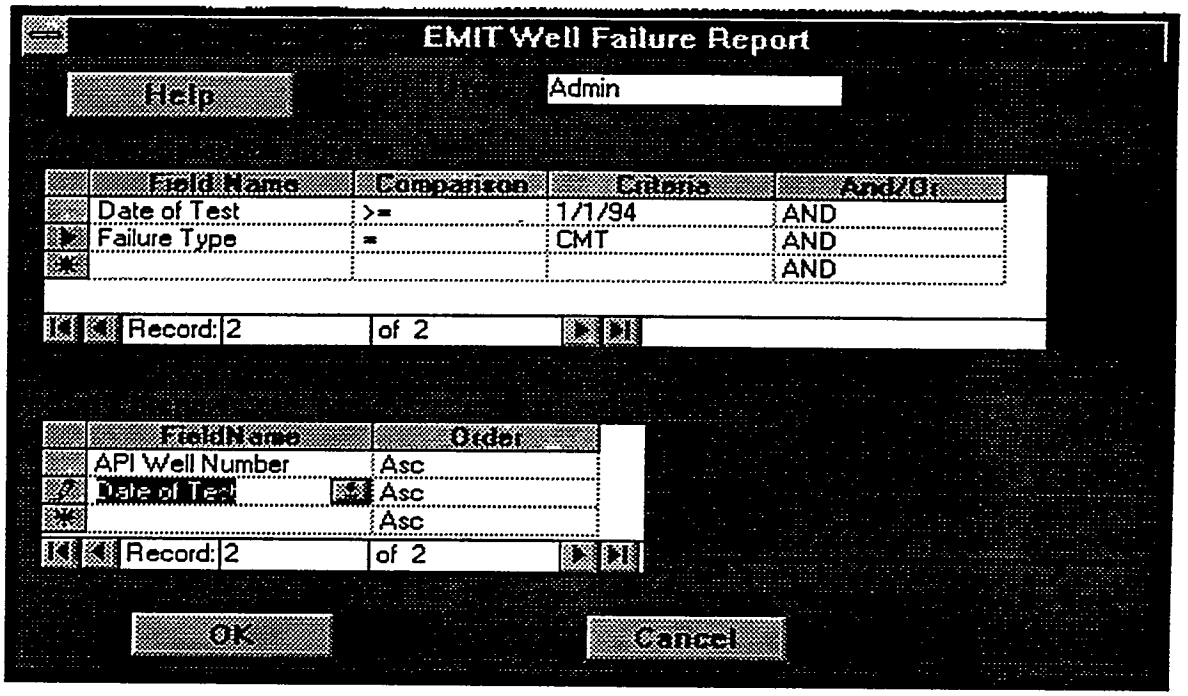
Wells Selected Subform

This subform displays all information for all wells if no selection criteria has been entered. After selection and sorting criteria have been entered and the "Apply Selection Criteria" button has been pressed, the subform will display a subset of the well table records. The selected (highlighted) record in this subform will be used to select the current record in other RBDMS forms.

Record Selection Form

Many of the forms and reports include a search button that allows you to select the records to be included in the current form or report. An example of the record selection form is included below:

Enter criteria for selecting records on this subform. Multiple criteria can be entered and combined with either an "AND" or "OR" clause.



Enter record sorting specifications into this subform. Multiple sorting fields in either Ascending or Descending order can be specified.

This form will appear with varying titles and field names depending on the type of report or form with which it is used. Each field is a combo box that allows you to select an entry from a drop down list that appears when you press <Alt-down arrow> or click on the down arrow button in the edit box.

The criteria available on the drop down list will correspond to the field name. For example selecting "Failure Type" in the Field Name will cause the combo box to display failure type codes and descriptions. Fields that contains values such as dates and numbers will not have anything in the drop down list. for these fields type the appropriate value.

Clicking the "OK" button causes the query to be performed and the report or form to be displayed containing the query results. Clicking "Cancel" cancels the report or form and returns to the previously active form.

Forms

Wells (Permits, Completions, Logs)

Introduction

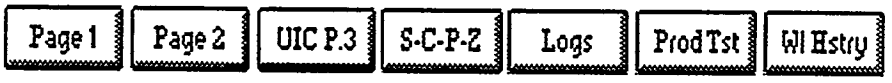
The Well Form is used for entering, updating, and querying information pertaining to individual wells. Because of the similarity in construction data for both production and injection wells, the RBDMS system uses one set of screens and data tables for both producing wells and for injection wells.

Each well is designated by a unique API Well Number. If a well has multiple side tracks, use the sidetrack digits in the API well number to enter construction data separately for each sidetrack.

The Well Form is normally entered after selecting the desired well from the Well Selection Criteria screen which is the first RBDMS screen presented to the user. Once in the Well form, the Find Button and the ← and → navigation buttons in the lower left corner of the screen will allow you to move to another well. The Add button will allow you to add new wells.

The Seven Well Screens

The RBDMS system stores a great deal of information about each well. Much more information than can fit on one or two screens. An attempt was made to group information on the screens in a logical manner so that you can quickly find the information that you are looking for. The Well Form consists of numerous screens that can be accessed by clicking on the following seven buttons:



Page 1 Well name, location, status, operator, important dates, field, pool, total depths, and other often referred to information;

Page 2 A catch-all screen containing information on the well's original operator, original well type and category, drilling unit, ownership, formation tops, and other miscellaneous data;

UIC Information that pertains to injection wells including: UIC permit numbers, maximum allowable injection rates and pressures, monitoring, and testing requirements and frequencies.

S-C-P-Z The STRINGS, CEMENT, PERFS, and ZONES screen contains data on the well's casing, liner, tubing, and other components; cemented intervals; perforations; and producing, injecting, USDW's and other geologic zones.

LOGS This screen contains information on logs that have been run on the well and cores and samples that have been taken from the wellbore.

Prod Tst This screen contains information on production tests that have been run on the well.

In addition to the six buttons listed above, there are also two buttons for jumping directly to the Well History screen and to the WELLBORE application.

To move to the desired screen, position the mouse cursor over the desired button in the lower left portion of the screen and click the left mouse button.

When the cursor is positioned in a data entry field, a brief description of the data element is displayed in the lower-left corner of the screen. Most data elements used by the Well program are self-explanatory. Data elements that require further explanation are described below.

Status Date

The data element labeled **Status** displays the current status of the well. The date the well changed to the current status is stored in the **Status Date**. For example, if the well status is "Shut-in", the Status Date will indicate the date the well was shut-in.

Slant

The Slant of the well is used to indicate whether the wellbore is Vertical, Horizontal, or Directionally Drilled. If the wellbore is Horizontal or Directionally Drilled, RBDMS will store the Bottomhole Location of the well. Please see LAT/LONG & BH LOCATION.

LAT/LONG & BH LOCATION

In most states only a small percentage of wells are directionally drilled. Because RBDMS contains extensive data on each well, an attempt was made to organize and display information such that the most frequently used data is immediately displayed on the first screens and less frequently used data made available by clicking on the appropriate push buttons. To modify and view Bottomhole Location

data click once on the LAT/LONG & BH LOCATION button. This will pop-up a window with data fields for storing the Bottomhole Location of the well in terms of Section, Township and Range and for storing Latitude and Longitude and State Plane Coordinates for both the Wellhead Location and Bottomhole Location.

The latitude and longitude data elements will be used for determining wells within an area of review. Two datums have been used for determining Latitude and Longitude. While the North American Datum of 1927 (NAD27), until recently the official and most prominent surveying datum for the United States, has been superseded by the North American Datum of 1983 (NAD83), there are still a number of existing well databases and cartographic products that use NAD27. Each state must be consistent in the use of a single datum for all Latitude/Longitude coordinates used in RBDMS.

Reference - Construction

The data field labeled **Const** is used to indicate whether the depths, tops, and bottoms for items pertaining to the construction of the well are measured from the Kelly Bushing, Derrick Floor, or Ground.

Mineral Interest

The three check boxes under Mineral Interest are used to indicate the presence of Federal, State, and/or Indian mineral interests in the well. An 'X' in the box indicates that such an interest is present. Click on the corresponding box, or tab over to the box and use the space bar to set the appropriate indicators.

Hydro Path

This data element is manually entered and is used by the environmental risk probability analysis modules of RBDMS. The 'Y'es or 'N'o entry indicates whether or not the well penetrates pressured formations having sufficient reservoir or aquifer pressures to initiate and sustain flow into the lowermost USDW.

Levels of Protection

This field stores a number representing the number of barriers in the wellbore between the injected fluid and penetrated USDW's. For example, in a well with surface casing set through the lowermost USDW, production casing, tubing, and packer, there are three levels of protection as the injected fluid must penetrate the tubing, production casing, and surface casing to reach the USDW.

Reference Tops

The data field labeled **Refer Top** is used to indicate whether the formation tops are measured from the Kelly Bushing, Derrick Floor, or Ground.

Page 4 (Strings, Cemented Intervals, Perforated Intervals, and Zones)

There is a great deal of information on this screen. The screen was designed so that detailed information on a well's casing, liner, tubing, and other components; cemented intervals; perforations; and production zones, injection zones, and USDW's are displayed on one screen. This will expedite comparisons between

casing depths, cemented intervals, perforations, injection zones, producing zones, confining zones, aquifers, and USDW's.

The system was designed to deal with a variety of wells ranging from shallow wells with a very simple configuration to deep complex wells with numerous strings of casing, liner, and tubing. For each well, the system will display the first four Strings (construction components including items such as conductor, casing, liner, tubing, DV tools, bridge plugs, etc.), Cemented Intervals, Perforations, and Zones. If the well consists of more than four items, the user may click on the ↑or ↓ buttons at the right of the form to scroll through the additional items. Figure 1 is an example of the "Strings" form for a well.

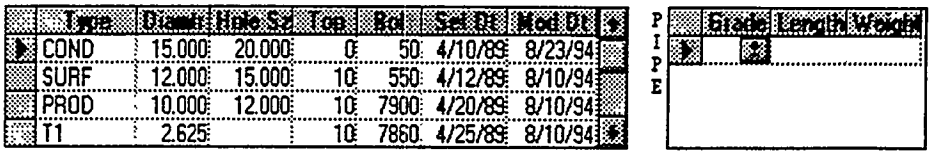


Figure 1 - Page 4 of Well Construction - "Strings" Window

To enter a String, Cemented interval, Perforation, or Zone, position the cursor at the last line in the appropriate form. This line will be blank and indicated by an "✱".

Each string of casing, may consist of several weights and grade of pipe. The grade, length, and weight of pipe are entered to the right of the form for entering the type, diameter, hole size, and top and bottom of the string as illustrated in Figure 1. It is important to note that the Grade, Length, and Weight of pipe shown pertain to the string of pipe that is selected as indicated by the black triangle to the left of "COND" (conductor). To display or enter pipes for another string, you must first click on the desired string.

The system also allows for entering multiple stages of cement with different densities and classes of cement for each cemented interval. The techniques for entering and displaying the different cement classes are identical for entering and displaying multiple grades or pipe for each string as shown above.

The "Zones" form is used for entering all USDW's, aquifers, confining zones, production zones, and injection zones. The zones should be entered in the order from shallowest to deepest. The user may enter multiple geologic formations for each Zone.

Page 5 - Logs Run, Cores, and Samples

This page is used to enter and display information on the logs, cores, and samples that have been run for a well. This information is used to ensure that all required logs, cores, and samples were received and as an index of the logs, cores, and samples that were received.

The screen displays two logs, cores, or samples at a time. Use the Page Up and Page Down keys to scroll forward and backwards through the logs, cores, and samples for a well.

Type

This data field indicates whether the record is for Logs, Cores, Core Analysis, or Cuttings. Enter the code or click the mouse to bring up the list of valid codes.

Date Run

Enter the date the logs were run or samples taken as reported by the operator.

Date Received

Enter the date the Log, , Core, Sample, or Blueline Copy was received.

Date Sepia Received

If your state requires reproducible sepias of logs, enter the dates these items were received.

Date Digital Log Received

If your state requires digital logs, enter the dates these items were received.

Production Tests

The Production Test form is a separate form that can be executed by clicking on a button in the Well form. The Production Test form is documented in the Production Test section of this documentation.

CONTROL BUTTONS

The Well form contains **NEW, SAVE, FIND, DELETE,** and **EXIT** control buttons. These actions may be performed by a single click of the mouse on the desired button or by tabbing to the desired button and pressing ENTER. The control buttons perform the following functions:

NEW

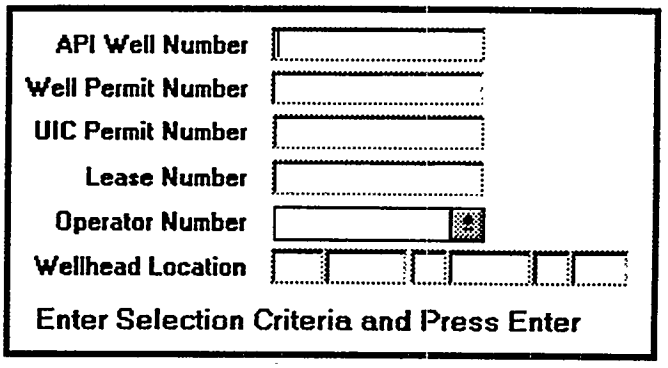
Click on the NEW button to clear the screen to permit the entry of a new well.

SAVE

Click on the SAVE button to save the record after all required information is entered. When updating a record, press save after all changes have been completed.

FIND

Click on the FIND button to display the following screen



A well may be found by any of the criteria listed. If you know the API Well Number or the Well Permit Number, the system will display the well having the API Well Number or Permit Number that you entered. If the number does not exist, the first well in the system will be displayed.

Many wells may have the same UIC Permit Number, Lease Number, Operator, or Wellhead Location. If you enter the Operator Number, for example, the system will bring up the first well for the operator. You may then click on the scroll bar in the lower left portion of the screen or use the CONTROL + PAGE UP or PAGE DOWN keys to move forward and backwards through the database to display additional wells operated by that Operator. The same method is used for finding wells by UIC Permit Number, Lease Number, and Wellhead Location. If you are looking for a well in a section with many wells, or for an operator with many wells, you may wish to use the Well Selection Criteria screen which is the first screen displayed when you start RBDMS. You can always return to the Well Selection Criteria Screen by clicking the mouse on the menu bar item **Window** and then clicking on **Well Selection Criteria.**

DELETE

Records in the Well Table are rarely deleted. Normally, only incorrectly entered wells will be deleted. To delete a well, find and display the well record, then click the DELETE button. The system will ask you to confirm that you want to delete the well and associated records.

EXIT

Click on the EXIT button to exit from the WELL maintenance form. This action will bring you back to the Well Selection Criteria Form.

Well History

Introduction

The Well History table is designed to store information on changes that occur in the life of a well from the date of the original Application for Permission to drill. Such changes will include workovers, changes in well status, and changes of operators.

Each time an important event occurs in the life of a well, a new entry must be made into the Well History table. A separate record will be added to the Well History table for each event.

The Well History table will also assist oil and gas regulatory agencies in ensuring that all completion reports and other follow-up documents are submitted by operators. If the activity described in the Well History requires the operator to submit a subsequent document or report, the name of the follow-up document and the deadline for submitting the document must be entered into the Well History record. This will provide the system with information required to generate reports listing delinquent documents.

The Well History form consists of a header containing information about the well and the body of the report in which the Well History event for the well is entered and displayed.

Accessing the Well History Form

The Well History form can be entered either from the Well Selection Criteria form or from the Well form. If you enter by pressing the Well History button on the Well Selection Criteria form, the Well History form will display Well History records for the well selected in the Well Selection Criteria form. If you enter by pressing the Well History button on the Well form, the Well History form will display the Well History records for the well selected in the Well form. You may then click on the ←→ navigation buttons in the lower left corner of the screen or use the PAGE UP or PAGE DOWN keys to scroll forward and backwards through the Well History records for the well.

It is always a good idea to return to the Well Form or Well Selection Criteria Form before viewing Well History records for another well. It is possible to use the find button to view Well History records for another well.

The following information is entered in the body of the Well History form:

Date Effective

The effective date of the activity.

Form Submitted

The agency form that was submitted describing the activity that is planned or that took place. Type in the name of the form or click on the combo box button to display valid forms. Valid forms are stored in the RBDMS Code table under TYP_FORM and must be entered before entering Well History records. If your agency accepts verbal information followed by subsequent written reports, enter a code for verbal reports.

Type of Work or Activity

The type of work or activity that was reported. Type in the name of the activity or click on the combo box button to display valid work and activity types. Valid work and activity types are stored in the RBDMS Code table under TYP_WORK and must be entered before entering Well History records.

Comments

Type of Mechanical Integrity Failure

If the work being reported was required to remedy a mechanical integrity failure, enter the type of MI failure being remedied or click on the combo box button to display valid MI Failure types. Valid MI Failure types are stored in the RBDMS Code table under FAIL_TYPE and must be entered before entering Well History records.

Cause of Mechanical Integrity Failure

If the work being reported was required to remedy a mechanical integrity failure, enter the cause of the MI failure being remedied or click on the combo box button to display valid MI Failure Causes. Valid MI Failure Causes are stored in the RBDMS Code table under FAIL_CAUSE and must be entered before entering Well History records.

Subsequent Report Required

If the operator must submit a subsequent report or form such as a new completion report after permission to reenter a well has been granted, enter the name of the Subsequent Report that must be remitted or click on the combo box button to display valid Subsequent Report names. These are normally the names of oil and gas regulatory agency forms. Valid Subsequent Report names are stored in the RBDMS Code table under TYP_FORM and must be entered before entering Well History records.

Date Subsequent Report Required

If a subsequent report is required, enter the date the subsequent report must be received by your agency.

Date Subsequent Report Received

If the subsequent report was remitted, enter the date the subsequent report was received by your agency. This information is used to prepare lists of delinquent reports.

CONTROL BUTTONS

The Well History form contains **NEW, SAVE, FIND, DELETE,** and **EXIT** control buttons. These actions may be performed by a single click of the mouse on the desired button or by tabbing to the desired button and pressing ENTER. The control buttons perform the following functions:

NEW

Click on the NEW button to clear the screen to permit the entry of a new Well History record for the well.

SAVE

Click on the SAVE button to save the record after all required information is entered. When updating a record, press save after all changes have been completed.

FIND

Click on the find button to find Well History records for a new well. Once you have brought up the Well History records for the desired well, you may then click on the ←→ navigation buttons in the lower left corner of the screen or use the PAGE UP or PAGE DOWN keys to scroll forward and backwards through the Well History records for the well.

DELETE

Records in the Well History table are rarely deleted. Normally, only incorrectly entered Well History records will be deleted. To delete a record, find and display the Well History record, then click the DELETE button. The system will ask you to confirm that you want to delete the record.

EXIT

Click on the EXIT button to exit from the Well History. This action will bring you back to the Well Selection Criteria form or to the Well form depending upon where you were when you entered the form.

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Production Tests

Introduction

The Production Test table is designed to store information on production tests, gas-oil-ratio (GOR) tests, and drill stem tests. A separate record is added to the Production Test table for each test performed and a history of past tests is maintained on the system.

The Production Test form consists of a header containing information about the well being tested and the body of the report in which Production Test data for the well is entered and displayed.

Accessing the Production Test Form

The Production Test form can be entered by pressing the Production Test (Prod Tst) button at the bottom of the Well form or using the menu bar by clicking on 'Forms' followed by 'Production Test'. The Production Test form will always display tests for the well selected in the Well Selection Criteria screen or the Well Form. If you enter the production test form via the menu bar from Well Selection Criteria form, the Production Test form will display Production Test records for the well selected in the Well Selection Criteria form. If you enter by pressing the Production Test

button on the Well form, the Production Test form will display the Production Test records for the well selected in the Well form. You may then click on the ←→ navigation buttons in the lower left corner of the screen or use the PAGE UP or PAGE DOWN keys to scroll forward and backwards through the Production Test records for the selected well.

The following information is entered in the body of the Production Test form:

Date of Test

Type of Test

Type in the name of the test or click on the combo box button to display valid forms. Valid test types are stored in the RBDMS Code table under TYP_TEST and must be established before entering Production Test records.

Drill Stem Test Number

If a series of drill stem tests for a well are run on the same date, use the Drill Stem Test Number to identify the individual tests. Each test is identified by the API Well Number, Date of Test, Type of Test, and Drill Stem Test Number. The combination of these fields must be unique for each test.

Choke Size

Production Method

Valid Production Methods include methods such as Flowing, Pumping, and Gas Lift. Type in the Production Method of the test or click on the combo box button to display valid Production Methods. Valid Production Methods are stored in the RBDMS Code table under PROD_MTHD and must be established before entering Production Test records.

Duration of Test

Enter the Duration of the test in hours.

Information on Interval Tested

Information on the interval tested includes the top and bottom of the interval tested, the reference point from which the top and bottom were measured, the name of the formation tested, and the bottomhole pressure.

Flowing & Shut-in Pressures for both Tubing & Casing

Produced Volumes of Oil, Gas, & Water

Enter the volumes of oil (barrels), gas (MCF), and water (barrels) produced during the test.

24 Hour Rates for Oil, Gas, & Water

Enter the 24-hour production rates for oil, gas, and water.

Water Quality Data

The Production Test form allows for entering the following water quality data for water produced during the test: TDS in milligrams per liter; Chlorides in milligrams per liter; pH; and Specific Gravity.

Comments

CONTROL BUTTONS

The Production Test form contains **NEW, SAVE, FIND, DELETE,** and **EXIT** control buttons. These actions may be performed by a single click of the mouse on the desired button or by tabbing to the desired button and pressing ENTER. The control buttons perform the following functions:

NEW

Click on the NEW button to clear the screen and permit the entry of a new Production Test. The API Number of the well will always default to the last Well Number entered, but you may enter a new Well API Number and enter a test for a different well. If you enter production test data for a new well and return to the Well form or the Well Selection Criteria form, those forms will display well data for the last API Number entered.

SAVE

Click on the SAVE button to save the record after all required information is entered. When updating a record, press save after all changes have been completed.

FIND

The Production Test form will only display production test records for the selected well. This prevents the user from inadvertently scrolling to tests for a different well and viewing and entering test records for an incorrect well.

To find Production Test records for a new well, click on the find button at the bottom of the screen. Once you have brought up the Production Test records for the desired well, you may then click on the ←→ navigation buttons in the lower left corner of the screen or use the PAGE UP and PAGE DOWN keys to scroll forward and backwards through the Production Test records for the well.

DELETE

Records in the Production Test table are rarely deleted. Normally, only incorrectly entered Production Test records will be deleted. To delete a record, find and display the Production Test record, then click the DELETE button. The system will ask you to confirm that you want to delete the record.

EXIT

Click on the EXIT button to exit from the Production Test. This action will bring you back to the Well Selection Criteria form or to the Well form depending upon where you came from when you entered the Production Test form.

WELLBORE

Wellbore is a wellbore schematic diagramming program developed by Production Computing Systems of Bakersfield, California. The software is used by several state oil and gas commissions and was selected as an off-the-shelf wellbore diagramming package to be supported by RBDMS.

The RBDMS Wellbore interface module will automatically extract well data from the RBDMS database and prepare a data file containing information on a well's construction in the format required by Wellbore. RBDMS will then automatically

execute Wellbore so that the user can view and plot the well's schematic diagram. This permits the user to automatically view on the screen, print, or plot schematic drawings of wells stored in the RBDMS without having to manually reenter the data into the wellbore diagramming program.

The RBDMS-Wellbore interface supports plotting the following elements:

Well Header Information	Well Schematic Elements
Well Name	Hole
API No.	Casing
Sec-Twp-Rng	Liner
County	Tubing
State	Cement
Field Name	Perforations
Operator Name	Packer
Date Spud	Plugs
Date Completed	Formation Tops
KB Elevation	
Ground Elevation	
TD	
PBTD	

Setting up your system to run Wellbore under RBDMS

In addition to the RBDMS ACCESS programs that are included in your RBDMS system, the Wellbore interface requires the following items:

Wellbore
The wellbore diagramming program must be acquired from Production Computing Systems of Bakersfield, California. RBDMS assumes that the Wellbore programs are found in the directory \WELLBORE on the default drive.
Wellbore comes with a complete set of user documentation. It is important that you read and understand the Wellbore documentation to fully utilize the features of Wellbore.

RBDMSWB.PIF
RBDMS includes a file named RBDMSWB.PIF. This file must be copied to your \WINDOWS directory. This PIF file is required to run Wellbore in the Windows environment.

RBDMSWB.BAT
The DOS batch file RBDMSWB.BAT is included with the RBDMS system. It must be copied to the \WELLBORE directory on the default drive.

Create a Wellbore database named RBDMS
RBDMS expects to find a Wellbore database named RBDMS. To create this database, run Wellbore under DOS and perform the following steps: Press **ALT+Database** followed by **Create**; Enter **RBDMS** for the file name and press **Enter**.

Viewing Wellbore Diagrams

To view a schematic diagram of a well perform the following steps:

Select the desired well using either the Well Selection Criteria Screen or the Well form;

Run the RBDMS to Wellbore export program selecting the WELLBORE menu option in the FORMS menu. This step will create a file to be imported into Wellbore and will then run Wellbore;

Press **ALT+Utilities** followed by i**M**port to run the wellbore import program;

Tab over to the file RBDMS.WBF and press enter to import the well data into wellbore. (If the well already exists in Wellbore, Wellbore will not allow you to import a second copy. You must first delete the well in the Wellbore database by highlighting the well and pressing the **Delete** key);

Use the arrow keys to select the desired well and press **Control+View** to view the well.

To Return to RBDMS

When you are finished viewing the schematic diagram, press the Escape key to return to the main Wellbore screen and then press **ALT+Database** followed by e**X**it.

Wellbore Requirements

Wellbore requires hole sizes and depths. If a well does not have hole data, Wellbore considers this an error and reminds the user that you must drill a hole before setting casing. Hole data is stored in the RBDMS system on the fourth screen of the Well form under STRINGS. Select code HOL1 for the first hole, and HOL2, HOL3, etc. if the well is constructed of holes of different diameters.

If the well contains packers or plugs, the diameters specified for the packers and plugs must equal the diameter of the corresponding hole, casing, or liner in which each packer or plug is located.

Valid RBDMS *CSG_STRING* Codes

For well construction elements stored in the STRINGS table on screen four of the Well form, data is transformed from the RBDMS to the Wellbore data structure according to the RBDMS codes. Existing RBDMS codes were mapped to corresponding Wellbore data elements. If new well construction element (**CSG_STRING**) codes are added to RBDMS, they must also be added to the RBDMS-Wellbore interface programs. The system currently supports the following codes.

Wellbore Element	**RBDMS Codes**
HOLE	HOL*, where * is any number 1 - 9
CASING	COND, STRL, SURF, PROD, or I*, where * is any number 1 - 9
LINER	"L*", where * is any number 1 - 9
PACKER	PKR

PLUG	CIBP, RBP
TUBING	T*, where * is any number 1 - 9

Caution

If a Wellbore "Import Error" occurs when importing data into Wellbore, the error indicates that some of the RBDMS data violates a Wellbore edit check. If such an error occurs, compare the Wellbore data tree and corresponding schematic diagram with the RBDMS well construction data, note missing construction elements, and correct any errors.

UIC Permit Form

The *UIC PERMIT* Form is used to enter and inquire specific information pertaining to Class II injection well permits, including both individual and area permits. Due to the fact that either single-well (Individual) or multi-well (Area) permits can be issued and since rule-authorized wells may exist, data and information specific to individual wells *(e.g., well location details, well construction permit information, completion details, maximum allowable injection pressures and rates, etc.)* should be accessed through the ***WELL*** Form.

Much of the information included in the ***UIC PERMIT*** Form was developed to address States' needs for tracking Class II injection well permits from receipt of the initial application, through the various modifications that may occur (*also requiring regulatory tracking*), and ultimately until the permit is no longer valid for whatever reason. Impetus to the development of the ***UIC PERMIT*** Form was the consideration of State reporting requirements as set forth by the United States Environmental Protection Agency (EPA). Therefore, this form presents the various data elements required by EPA for preparation of EPA 7520 reports which must be submitted quarterly by States.

Permit No.:

UICPERMIT

State UIC Permit Number, example permit numbers are as follows:

AOGCC	NA
MSOGB	MS99999
MBOGC	MT99999
NOGCC	NB99999

Wells Associated with this UIC Permit:

Enter API Well Number for wells included in this permit.

This subform has been included to track each of the wells, by API Well Number, that are included as part of this Class II injection well permit. If the permit is an individual well permit, only one API Well Number will be included in the subform. For area permits, multiple API Well Numbers associated with each well in the permit should be included in the subform.

If additional wells are added to the permit, the new API Well Number should simply be added to the subform. If desired, a comment can also be included to note that a new well has been added.

It is important to note that in order for the ***RBDMS*** to be fully relational, the API Well Numbers for each well associated with the permit must be entered.

NOTE: The subform for this field has been designed to show basic information for each API Well Number to allow for accurate identification of each API Well Number stored in this field.

MOD_TYPE

Permit Modification Type?

Use the Combo box or simply enter the type of permit modification applies to this permit. The various types of permit modifications are stored in the CODES Table and were developed using State and EPA standards.

Save/Exit

Click this button to Save this Entry and Exit this Screen.

Cancel

Click this Button to Cancel this Entry.

Well Filter

Click this Button to Save this Entry and return to Well Selection Criteria Form without closing the current form.

Area of Review Form

The *AOR* Form is used to enter the results of an AOR study. An AOR study (or investigation) may be conducted for a single well or multiple wells (i.e., perhaps an entire waterflood unit). The AOR form facilitates the storage of data related to AOR study statistics and results, including the basic information required on the EPA 7520 reports which must be submitted quarterly by states. The form also allows users to track all the wells in which a study has been done by storing the UIC Permit Number (for multiple well AOR studies) or the API Well Number (for a single well AOR study). In addition, the form includes a subform which can be used to store the API Well Numbers for all wells identified within the AOR study area (including both producers and injectors). The form does not, however, directly include a mechanism for tracking wells without API Well Numbers (i.e., water wells, monitoring wells, etc.). For these types of wells, listing the well in the comments box should be adequate for state tracking purposes.

AOR Number:

AOR_NO

The AOR tracking number assigned to this AOR Study/Investigation. The AOR Number allows for specific AOR records to be related to other tables within *RBDMS* and is a counter. Therefore, users need not enter a specific number into this data field.

Multi?

MULTI_WL

Has AOR been done for Multiple Wells (Yes or No)? If yes, the system will then track the wells in which the AOR study was performed through the UIC Permit Number. If the AOR study was done for a single well, then only the API Well Number for that well needs to be entered. Tracking in this manner facilitates comprehensive tracking of AOR data and also facilitates the development of associated reports.

Wells Found in AOR Study Area:

This subform tracks the wells identified in the AOR study area. This subset of wells does not include the well or wells in which the study has been performed for, but those wells within the area of review. These wells may be producers or injectors.

Print Form

Click this button to print this form.

New

Click this button to add a new record.

Search

Click this button to select the records to display.

Save/Exit

Click this button to save the current record and exit this form.

Cancel

Click this button to cancel any updates to the current record.

Well Filter

Click this button to save the current record and return to Well Selection Criteria Form without closing the current form.

Internal Mechanical Integrity Test Form

The Internal Mechanical Integrity Test (*IMIT*) Form is used to store information related to all IMIT's where testing or annulus pressure monitoring is employed. Data includes details on when IMIT's are performed, IMIT methods, test results, and other details necessary for evaluation and tracking by state regulatory agencies.

Ann. Mon. Result :

MON_RSLT

If the operator for this well is utilizing annulus monitoring, tracking of the status of such monitoring can be tracked in this space.

Type of IMI Failure:

FAIL_TYPE

This field stores the type of internal mechanical integrity test failure and is required for environmental risk probability analyses.

Cause of IMI Failure:

FAIL_CAUS

This field stores the cause of internal mechanical integrity test failure and is an optional element for environmental risk probability analyses.

Print Form

Click this Button to Print the Information Contained in this Record (i.e., on this Screen)

New Test Date

Click this Button to Enter a New IMI Test Date.

Search

Click this Button to Search for a New IMIT Record.

Save/Exit

Click this Save this Entry and Exit this Screen.

Cancel

Click this Button to Cancel this Entry.

Well Filter

Click this Save this Entry and return to Well Selection Criteria Form without closing the current form.

External MIT Form

The External Mechanical Integrity Test (***EMIT***) Form is used to store information for EMIT's performed and reported within the state. Data includes specific details regarding when EMI demonstrations are performed, what type of test was used, test results, and other details necessary for evaluation and tracking by state regulatory agencies. Separate records are stored for each well regardless of result.

Failure Type:

FAIL_TYPE

This field stores the type of external mechanical integrity test failure and is used in environmental risk analyses

Failure Cause:

FAIL_CAUS

This field stores the type of external mechanical integrity test failure and is used in environmental risk analyses

Print Form

Click this Button to Print the Information Contained on this Screen

New Test Date

Click this Button to Enter a New EMI Test Date for this Well.

Search

Click this Button to Search for Another Record.

Save/Exit

Click this Save this Entry and Exit thi. Screen.

Cancel

Click this Button to Cancel this Entry.

Well Filter

Click this Save this Entry and return to Well Selection Criteria Form without closing the current form.

UIC Monitoring Form

The *UIC Monitoring* form is used to enter and store reported injection monitoring data (e.g., injection pressures and volumes). A separate record will be stored for each month (or report if monthly data is not required). The form also includes data field to track and store information pertaining to annulus pressures, casing pressures, reservoir pressures, etc. Furthermore, the form includes significant background information pertaining to the well in which reports are being submitted. This background information helps in the prevention of errors and enhances tracking/inquiry. If an amended report is submitted, the original report will be replaced with the updated information submitted on the amended report.

The form has been designed so that each of the 12 months for a particular year can be viewed on one screen. Data for previous years can easily be selected, with data being viewed on a year by year basis using the combo box at the top left of the data subform.

Print Form

Click this Button to Print the Information Contained on this Screen

New Test

Click this Button to Enter a New EMI Test Date for this Well.

Search

Click this Button to Search for Another Record.

Save/Exit

Click this Save this Entry and Exit this Screen.

Cancel

Click this Button to Cancel this Entry.

Well Filter

Click this to save this Entry and return to Well Selection Criteria Form without closing the current form.

Env Risk Probability Analysis

The Environmental Risk Probability Analysis Form performs the same risk analysis as the Risk Probability Report. The form is used to analyze a single group of wells on an interactive basis whereas the report can report results for multiple groups.

The form will not contain any information after opening. To select the group of wells on which to perform the risk analysis press the "Select" button. Pressing this button opens the familiar selection criteria form used throughout RBDMS. Enter the criteria for selecting the wells to analyze for risk. You can mix and match selection criteria to analyze by operator, field, county or any other field available. Click "OK" when you have entered your selection criteria. RBDMS will then select the wells specified and display the results of the risk analysis.

It should, however, be noted the confidence level is higher on larger groups of wells having numerous tests opposed to performing the analysis on a very small number of wells having only a very few number of tests. Therefore, when initiating this analysis, it is recommended that a minimum of approximately 10 tests be used as a threshold for evaluation purposes.

Levels of Protection Analysis

The Levels of Protection Analysis displays the level and category of the risk from individual wells. This analysis calculates the relative risk levels from individual wells and ranks them from 0 (high risk) to 7 (no risk) based on well construction information and the presence of a USDW. To achieve a rating of "7" (no risk), there must be a complete lack of USDWs for the well being evaluated.

This form initially has a record for each well in the WELL table and can display each well individually. To narrow down the list of selected records press the "Search" button. This will open the form for entering sort and selection criteria.

Pressing the "Assign Results to Wells" button will update the Level of Protection field in the Well table with the result of the analysis for every record in the forms current record set. This button will not be available if you don't have update privileges on the Well table. Updating a large number of records will take a significant amount of time. Depending on the speed of your computer updating 10,000 wells could take over an hour.

Please note that the U.S. Environmental Protection Agency considering proposing new regulations that may specify minimum construction standards and mechanical integrity testing frequencies for specific well construction types. Depending on the final outcome of these regulations, modifications may be desired for this module of the Risk Based Data Management System. However, it will continue to serve as a means of generally evaluating the overall construction of individual wells based on construction and the presence/location of USDWS.

Determine Wells in AOR

This form offers a simple way of determining the wells in an "Area Of Review" (AOR). First run the sort subroutine by clicking upon the filter icon to the right of the API Well Number entry box. Then enter the API Well Number of the well that is the focus of the investigation and the radius of the circle to use to locate AOR wells. Click the "Perform Analysis to Find Wells in AOR Study Area" button. RBDMS will calculate the distance from the study well to all other wells based on latitude and longitude measurements and display a list of all wells within the radius specified sorted by distance from the study well.

This form includes multiple procedure buttons at the bottom of this form. These procedure buttons allow users to generate a wellbore diagram using WELLBORE or create environmental risk reports for wells found in the AOR. These features were designed to assist technical and field staff in performing day-to-day operations concerning well and AOR evaluations.

Clicking the button with the filter icon allows you to presort the wells that will appear in the dropdown list for the study well and loads the wells into the API Well Number box for selecting.

Wells without latitude and longitude values for the well head will not be included in the wells selected.

In addition, field or office personnel may use this form to locate wells within a specified radius from a particular latitude/longitude for field investigation purposes (perhaps associated with a complaint). To accomplish this, users may enter a latitude and longitude and direct the form to "determine wells in AOR".

Inspections

Introduction

Oil and gas boards and commissions perform numerous inspections to ensure compliance with agency regulations. RBDMS will assist in performance of the following inspection functions:

- Maintaining inspection schedules;
- Maintaining data on all inspections performed including inspection results;
- On-line Inquiry of inspections performed;
- Tracking failed inspections requiring remedial action;
- Generating statistics on inspections performed.

The types of inspections performed by state oil and gas regulatory agencies include:

- Construction;
- Routine;
- MIT Witness;
- Compliance Verification;
- Complaint;
- Incident;
- Rig;
- BOP Equipment;
- Meter;
- Plugging;
- Surface Restoration.

All types of inspections are stored in a single inspection table. It was possible to design the system in this fashion as much of the inspection data is identical for all types of inspections. The items that vary from one inspection type to another are the individual pass/fail items that are checked during each type of inspection. In addition a comment field is provided for information that is unique to each inspection.

The data entry form used to maintain data on inspection results will be similar for all types of inspections, but the list of pass/fail codes will differ based upon the type of inspection being performed

Inspections for Wells, Complaints, Rigs, and Meters

While the vast majority of inspections are performed at wellsites, inspections can also be performed for complaints, rigs, and meters. If an inspection is for a well, the inspection data will be tied to the well by the API Well Number, since the location of the wellsite is already stored in the well record, it is not necessary to reenter the location for the inspection. Likewise, inspections for complaints are

tied to complaints by the Complaint Number, rig inspections are tied to individual rigs by the Driller and Rig Numbers, and inspections for **meters** are tied to the individual meters by the meter number. Each of these types of inspections utilizes a slightly different input screen. If an inspection is for an incident at a wellsite, the inspection should be entered as a well inspection.

Accessing Inspection Forms

You can access the Inspection forms by clicking on the Inspections button in the RBDMS Well Selection Criteria form or by using the menu bar and clicking on Forms and then Inspections. In either case you will be prompted to select either a Well, Incident (Complaint), Rig, or Meter inspection form. You may also choose to enter Inspection Fail Codes and Descriptions.

Before entering inspections for a well, incident (complaint), rig, or meter, the associated well, incident (complaint), rig, or meter must be entered into the system.

Responsible Company

In most situations, the responsible party is the operator of the well. The system will automatically default the Responsible Company Number to the Number of the Operator of the well, but this number may be modified by the user.

Violation/Non-Compliance Identified, SNC

These two data fields consist of Yes/No indicators. An 'X' in the box indicates YES, and a blank indicates NO. Press the space bar or position the cursor in the box and click the left mouse button to change the status from YES to NO or visa versa

Failed Items Subform

Enter the codes of the items that failed when the inspection was performed. The combo box in the subform will only display the list of pass/fail codes and descriptions that pertain to the type of inspection being entered. To exit from the subform, press **Ctrl+Tab** or position the cursor and click on the desired field.

Maintaining Inspection Schedules

In addition to storing information on inspections that have been performed , the inspection module will allow the user to enter data records into the Inspection Table for inspections that will be performed at some future date. Data records for future inspections are used by the system to prepare reports of scheduled inspections. Records for future inspections can be established for any future dates including dates different from those that would normally be established based upon routine inspection frequencies.

Inspection records will contain the following four dates to assist in scheduling inspections:

- The date the inspection is required to be performed by;

- The date the operator was notified of the need to schedule an inspection;
- The date the inspection is scheduled to be performed;
- The date the inspection was performed.

Inspection records for future inspections will be blank except for the following information:

- Inspection Number - Automatically assigned by the system for each inspection entered
- Type of Inspection
- API Well No., for Well Inspections
- Incident No., for Complaint/Incident Inspections
- Rig No., for Rig Inspections
- Meter No., for Meter Inspections
- District
- Oil Field
- Date Required
- Date Operator Notified
- Date Scheduled
- Comments

The system will assist in determining wells that require inspections by printing several reports. To determine wells that require Routine/Periodic inspections, the user will be asked to enter a date, and the system will list all active wells that have not been inspected after that date.

For states that require surface restoration inspections, when a completion report is received stating that the well has been plugged, the user will enter a future inspection record indicating that a surface restoration inspection is required and the date by which the inspection must be performed. This information will be used to schedule such inspections and insure that they have been performed.

For inspections to witness MIT's, after the operator has been notified that an MIT is required and has contacted the state to schedule an MIT inspection or to advise staff that an MIT will be performed on a certain date, the user will add an inspection record for the well stating the scheduled date and that the inspection is for the purpose of witnessing an MIT.

Tracking Failed Inspections Requiring Remedial Action

RBDMS contains a Violations/Compliance module to track violations until they are remedied. The inspection module includes a control button to bring up the Violation/Compliance form so that the user may create a data record for the violation.

For failed inspections that will not result in compliance records, the Inspection Table contains data fields for Date Remedy Required and Date Remedied. For inspections for which Compliance records are not written, these two dates will be used to track failed inspections until remedial work is completed. If a compliance record is created, these two dates will be left blank, and the compliance module will be used to track the status of remedial actions.

To create a compliance tracking record for the violation

After entering all pertinent data for the inspection press the **Write Violation** control button. The compliance form will then appear on the screen. Enter the compliance data for the inspection at this time and immediately exit from the Compliance form. The system will then return you to the Inspection form and will automatically write the Compliance Number of the compliance record for the failed inspection at the bottom of the Inspection Form.

CONTROL BUTTONS

The Inspection form contains **NEW, SAVE, DELETE,** and **EXIT** control buttons. These actions may be performed by a single click of the mouse on the desired button or by tabbing to the desired button and pressing ENTER. The control buttons perform the following functions:

NEW

Click on the NEW button to clear the screen to permit the entry of a new inspection.

SAVE

Click on the SAVE button to save the record after all required information is entered. When updating a record, press save after all changes have been completed.

DELETE

Records in the Inspection Table are rarely deleted. Normally, only incorrectly entered inspections will be deleted. To delete a well, find and display the inspection record, then click the DELETE button. The system will ask you to confirm that you want to delete the inspection records.

EXIT

Click on the EXIT button to exit from the Inspection maintenance form. This action will bring you back to the Well Selection Criteria Form.

FIND

The Inspection form uses the standard ACCESS find features. To find a particular inspection, position the cursor in the field that you wish to find by and either click on the binoculars find icon in the toolbar or press shortcut keys **F7** or **Ctrl+F**. The system will then display a dialog box where you will enter the number or text string

that you wish to find. The system will find the first occurrence of the number or string and you may find subsequent records by clicking on the Find Next button. You may reposition the Find Dialog Box by clicking on and dragging the header.

Inspection Fail Codes and Descriptions

To allow for the different pass/fail items for each type of inspection, the system includes a database table with a list of all valid pass/fail items for each type of inspection. For example, a routine site inspection might include pass/fail codes for items such as condition of fences, lease identification, and seals on stock tanks; while a surface restoration inspection would include codes for topography, reseeding, and removal of equipment. This table will store **all** valid codes for each type of inspection. The system will allow each state to maintain its own lists of pass/fail items. The Inspection Pass/Fail Code table contains the following data elements:

Type of Inspection

The type of inspection that the code pertains to. Use the combo box to select the desired type of inspection.

Fail Code

The number assigned to the pass/fail item.

Status

A one character code indicating whether the Fail Code is (A)ctive or (I)nactive. This data element was included to address situations where certain fail codes are no longer used. If a code is no longer used, enter the status as (I)nactive. Do not delete the code as it may have been used in past inspections.

Description

A 35 character description of the pass/fail item.

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Compliance Form

The *Compliance* Form is used to enter data and information pertaining to compliance/non-compliance activities, violations, and enforcement data for various wells or actions initiated or identified by the State personnel. The *Compliance* Form is generally designed to maintain compliance information for individual Class II injection wells and includes the basic information required for the EPA 7520 reports. However, the Compliance Form has also been designed to maintain relevant data and information not necessarily related to Class II injection wells or perhaps not related to an idividual well. This design approach was used to account for violations or compliance issues that may pertain to a lease or unit rather than an individual well. This approach has also provided users with the opportunity to maintain information on producing wells as well as injection wells if desired.

Save/Exit

Click this save this entry and exit this form.

Print Form

Click this Button to Print a Report of the Information on this Screen.

New Viol.

Click this Button to Enter a New Non-Compliance Date for this Well.

Search

Click this Button to Search for Another Record in the Compliance Table.

Cancel

Click this button to cancel cpdates to the current record.

Well Filter

Click this button to exit and return to Well Selection Criteria Form without closing the current form.

Incidents Form

The Incidents table serves as a central location for storing information on Incidents, Complaints, and Spills. In many situations these events are related to a well and the location of the well would serve as the location of the event, but it is also possible for an event, such as a spill, to occur some distance from a well. To accommodate events that are not well related the Incident table includes data elements to store the location of the incident, complaint, or spill.

If an incident occurs at a well and the well number is entered, the screen will display information to identify the well including: the name of the operator of the well; the name of the well; the county and field in which the well is located; and the location of the well in terms of section, township, range, principal meridian, and quarter-quarter location. After entering the API Well Number, it is always good practice to check the identifying information of the well to insure that that the correct well number was entered.

The Incident form stores and allows the user to enter the following information:

Incident Number

This number is automatically generated by the system when a new incident is entered. Incidents are sequentially numbered starting with the number 1.

Type of Incident

Incident Types and Codes are stored in the RBDMS Code Table. Click on the combo box button to display the list of valid types of incidents, complaints, and spills.

Date and Time of Incident

Date and Time of the Incident.

Volume Spilled

If you are entering data for a spill, enter the volume spilled in barrels.

UIC Related

This check box is used to indicate whether or not the incident is UIC related. An 'X' in the box indicates that the incident is UIC related. Press the space bar or click on the box with your mouse to change the status of this indicator.

Emergency

This check box is used to indicate whether or not the incident is an emergency. An 'X' in the box indicates that the incident is an emergency. Press the space bar or click on the box with your mouse to change the status of this indicator.

API Well Number

If the incident is associated with a well, enter the API Number of the well.

Responsible Company

Enter the company number of the responsible company. If you do not know the number, click on the combo box button to list company names and numbers. If the incident occurs at a well and the API Well Number has been entered, the company number is pre-filled with the number of the operator of the well. This may be modified by the user.

Location

If an incident occurs at a well and the API Well Number has been entered, the system will automatically set the location of the incident to the location of the well. The location of the incident includes the following data elements:

- Portion of Section (i.e. Quarter-Quarter), Section, Township, Range, Principal Meridian;
- Latitude and Longitude

State & County

If the incident occurs at a well and the API Well Number has been entered, these fields default to the state and county of the well. If not, enter the 2-digit API State Number and 3-digit API County Number. Click on the combo box button to display county names and numbers.

Oil/Gas Field Number

Automatically pre-filled to the oil/gas field of the well if the API Well Number has been entered. If not, enter the state Oil/Gas Field Number. Click on the combo box control to display oil/gas field names and numbers.

Date & Time Notified

Date and Time of State Notification.

Date & Time of Response

Date and Time of State Response.

Date Resolved

Date Incident Resolved.

Action Taken

Action types and codes are stored in the RBDMS Code Table. Click on the combo box button to display the list of actions.

Comments

Comments upon Incident and Actions Taken.

Idle Well Reports Data Entry Form

Most state oil and gas regulatory agencies require operators to submit reports on idle or inactive wells, and the Idle Well Reports table stores a history of idle well reports submitted for each well. Each Idle Well Report record includes the data elements listed below. Idle well programs vary from state to state, and each state need only enter those data elements that pertain to the state's program and reporting forms.

API Well Number

API Number of the well for which the report is being submitted

Report Date

Date the Idle Well Report was completed

Future Utility

A code indicating the future utility of the well. Codes and descriptions are stored in the RBDMS code table.

Last Production Date

The date the well last produced.

Scheduled Abandoned Date

The date the well is scheduled for abandonment.

Static Fluid Level

The depth to the top of-fluid in the wellbore.

Static Fluid Level Method

The method by which the static fluid level was determined.

Pressure-Tubing

Tubing Pressure.

Pressure-Production Casing

Pressure within the Production Casing. Tubing-Production Casing Annulus pressure.

Pressure-Surface Casing

Pressure within the Production Casing. Production Casing-Surface Casing Annulus pressure.

To enter idle well reports for a well, enter the API number of the well and press tab. Before entering the idle well report, verify that you have selected the correct well by reviewing information about the well displayed in the form header.

Continuous Form

Unlike many forms that display a single record on the screen the Idle Well Reports form displays numerous records. This makes it easier to compare the data being entered for the current reporting period with information reported for past periods. In continuous forms, the combo box control button for a field will only appear when your cursor is positioned in the field. To enter a new idle well report be sure your cursor is positioned in the in first field of the blank record at the end of the continuous form. . To enter an idle well report for another well, enter the API number of the new well in the form header and press tab.

Accessing the Idle Well Form

You can access the Idle Well form via the menu bar by clicking on **Forms** and then clicking on **Enter Idle Well Reports.**

EXIT

To exit from the Idle Well Reports form, click on the **EXIT** button at the bottom of the form.

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Reference Files

Companies Form

The Name and Address form is used to add, update, and delete information pertaining to companies and individuals doing business with your agency. Information maintained by this program includes company names, addresses, phone numbers, subscriptions to agency publications and related data.

The Company Form is accessed from the Well Selection Criteria screen or via the RBDMS Menu Bar at the top of the screen by selecting Forms, Reference Tables, Companies.

Company Number

Each company or individual will be assigned a unique **Company Number**. The company number contains a decimal point and consists of a six-digit number preceding the decimal point and a two-digit number following the decimal point. Some companies have many individual offices with different addresses, and this numbering system was selected to make it easy to keep track oı all offices and addresses for a company. The six digit number to the left of the decimal point is used to designate the company, and the two digit number following the decimal point is used to designate individual offices. Each company may have up to 100 individual offices with numbers ranging from 00 to 99. The principal office should be numbered 00.

Once a number is issued to a company, it should not be changed and the program will not allow the user to do so.

Status

At times, companies may cease to exist. Nevertheless, there may be historical information in the RBDMS system associated with such companies, and the old Company Name and Address records must be kept on the system. Use the Status Code of "A" for active companies and "I" to designate inactive companies.

Problem

This data element is used to indicate the company has an unresolved problem and/or that a restriction has been placed on the company. Any restrictions are entered under comments.

Company Name

If the company is an individual, enter the last name in the Company Name, and the first name under **First**. If the company is an organization and the company name has some preceding words that will not normally be used for looking up or sorting the company name such as "The XYZ Producing Company". Place "XYZ Producing Company" under the company name and "The" under the First Name This will facilitate searches by company names and the preparation of alphabetically sorted company lists.

Company Types

Each company or individual may be designated as being in one or more of the following categories:

Operator (OPER)

Injection Operator (INJ OPER)

Bonding Company (BONDG)

Driller (DRILL)

Oil Transporter (TRANS)

Gas Gatherer (GATHR)

Water Hauler (HAULR)

Casing Puller (PULLR)

Miscellaneous Category 1-6 (MISC1 - MISC6)

These categories will be used to prepare mailing labels for mailings to designated groups. Click the mouse in the Company Types check boxes to set the Company Type indicators. You may also change the status of a Company Type indicator by positioning the cursor on the Company Type Indicator and pressing the spacebar.

Comments

The comment box will be used to store notes or comments about the company. All comments for a company are stored in one record. There is no limit to the length of comments.

Publications

Oil and gas regulatory agencies publish various publications that are distributed to subscribers. A Publication Type Code must be established for each publication and entered into the Code Table before publication records can be added. To enter publication subscriptions for a company, click the mouse on the last (blank) publication record (indicated with an *). For each publication that a company subscribes to, enter the Publication Type, Subscription Start Date, Subscription End Date, Amount Paid, and Date Paid. A new publication record is automatically added after all of this information is entered. If there is no charge for the publication, press TAB or ENTER to bypass the Amount Paid and Date Paid fields. A company office may have only one subscription to each publication.

To move from the Publications portion of the form back to the Name and Address portion of the form click on a field in the Name and Address portion or press CONTROL+TAB.

CONTROL BUTTONS

The Company Name and Address form contains **NEW, SAVE, FIND, DELETE,** and **EXIT** control buttons at the bottom of the screen. These actions may be performed by a single click of the mouse on the appropriate button, or by tabbing to the desired button and pressing ENTER. The control buttons perform the following functions:

NEW

Click on the NEW button to clear the screen to permit the entry of a new company.

SAVE

Click on the SAVE button to save the record after all required information is entered. When updating a record, press save after all changes have been completed.

FIND

Click on the FIND button to display a screen that will help you find a company. Records may be found by Company Number, DOE Number, or Company Name.

If you know the company number, click on the FIND button and enter the company number in the proper field and press enter. You may then click on the ←→ navigation buttons in the lower left corner of the screen or use the PAGE UP or PAGE DOWN keys to scroll forward and backwards through the database by Company Number.

If you know the company name or a portion of the company name, click on the FIND button and enter that information in the Company Name box. As you type, the system will display the company name that is the closest match to the letters that have been entered. Then click on the down arrow to display additional company names in alphabetical order. Click on the desired company or use the ↑ ↓ keys to move to the desired company and press enter to display the Name and Address record for that company. You may then click on the ←→ navigation buttons in the lower left corner of the screen or use the PAGE UP or PAGE DOWN keys to scroll forward and backwards through the database by Company Name.

If you know the DOE company number, click on the FIND button and enter the DOE company number in the proper field and press enter. You may then click on the ←→ navigation buttons in the lower left corner of the screen or use the PAGE UP or PAGE DOWN keys to scroll forward and backwards through the database by DOE Company Number.

DELETE

Records in the Company Name and Address Table are rarely deleted. Normally, only incorrectly entered companies will be deleted. To delete a company, first find and display the company name and address record. Next set the Status to "Inactive" and click on the DELETE button. Only records with an "Inactive" status can be deleted.

EXIT

Click on the EXIT button to exit from the Company Name and Address maintenance form.

Bonds Form

The RBDMS Bonds Table stores information on all bonds and other financial instruments presented by operators, casing pullers, and other companies required to provide such instruments. The Bonds form is used to maintain information on the bonds and the wells covered by each bond.

The Bonds form is accessed via the RBDMS Menu Bar at the top of the screen by selecting Forms, Reference Tables, Bonds.

The Bonds form contains a subform where the user can enter the API numbers of all wells covered by a bond. As the user enters the API number for each well the system will automatically display the Well Name, Operator of the well, and Legal Description of the well using data stored in the Well Table.

Bond Number

A unique number issued to each bond by the state. Do not confuse the Bond Number issued by the state with the Bond Number issued by the Guarantor. The bond number issued by the guarantor is located to the right of the Guarantor.

Purpose

This data element stores the purpose for which the bond was received such as "Plugging", "Surface Restoration", or "Casing Puller". Clicking on the down arrow in the text box will display the valid "purposes" from which you may select one for the bond being entered. The set of valid selections are stored in the Codes Table, and the purposes for which your agency receives bonds must be entered into the Codes Table before bonds can be entered into the system.

Guarantor

The bonding company or individual providing the financial guarantees. This company or individual must be entered into the Company Table with the Bonding Company indicator set to yes.

Operator

The name of the operator, casing puller, or other company or individual covered by the bond. This company must exist in the Company Table.

Maximum Number of Wells

If a multi-well bond is limited to a maximum number of wells, enter the maximum number of wells that can be carried under the bond in this data field

Oil and Gas Fields Form

The RBDMS Fields Table stores information on all active and abandoned oil and gas fields in the state. The Oil and Gas Fields form is used to update information in the Fields Table.

The Oil and Gas Fields form is accessed via the RBDMS Menu Bar at the top of the screen by selecting Forms, Reference Tables, Fields.

State Field Number

A unique number assigned to each oil and gas field by the state.

DOE Field Number

A number assigned to each oil and gas field in the United States by the US Department of Energy. The US DOE codes are listed in the ***Oil and Gas Field Code Master List*** published annually by the US Energy Information Administration.

Counties

The system will store all counties in which each field is located. It is necessary to be able to enter more than one county for a field, because a large field, or one near a county boundary, may span multiple counties. Furthermore, a field may extend into an adjoining state. For this reason, the system provides for entering the API State Number in addition to the County Number for each county in which the field is located. If you click on the down arrow in the State text box, the list of available state names and numbers will be displayed. Once you select a State, clicking on the down arrow in the County text box will display a list of available counties. Counties must be entered into the County Table before attempting to enter oil and gas fields.

Field Rules Indicator

Click on the Field Rules indicator to indicate the presence of special rules for the field.

Geologic Formations Form

The RBDMS Formations Table stores a list of all geologic formations in the State together with their codes. The Geologic Formations form is used to update information in the Geologic Formations Table.

The Geologic Formation form is accessed via the RBDMS Menu Bar at the top of the screen by selecting Forms, Reference Tables, Geologic Formations.

Several different sets of formation codes have evolved over the years. To maintain compatibility with existing records and facilitate data transfers between organizations, RBDMS provides for three sets of codes in addition to the Formation Name. RBDMS requires the selection of one primary set of codes that will be used to relate geologic formation data between the Geologic Formation Table and other tables in the RBDMS system. This primary set of codes is called the State Code on the Geologic Formation form.

The Geologic Formation form is different from most RBDMS forms in that multiple records are displayed per screen. Use the left-right record navigation buttons at the lower left corner of the screen or the up-down navigation arrows at the right of the screen to move forwards or backwards through the Geologic Formation database. If you wish to view the Geologic Formations sorted in a different order, position the cursor in the field on which you would like the search to occur and click on the **A-Z** sort button in the Tool Bar the top of the form.

To **exit** from the Geologic Formation form, select File, Close from the Menu Bar at the top of the screen.

State Code

The geologic formation codes used by your agency. This is the primary code used by RBDMS to relate geologic formation data in different tables.

AAPG Code

Geologic formation codes in the format recommended by the American Association of Petroleum Geologists.

Industry Code

If needed, this data field may be used to store geologic formation codes in the format used by the other organizations in your state.

Pools/Reservoirs Form

The RBDMS Pool table stores information on all oil and gas pools and reservoirs in the state. The Pools/Reservoirs form is used to update information in the Pool Table.

The Pools/Reservoirs form is accessed via the RBDMS Menu Bar at the top of the screen by selecting Forms, Reference Tables, Pools/Reservoirs.

The Pool table was established for the convenience of state oil and gas commissions to store pool specific data. Once pools are entered into the pool table, pool numbers can be added to well records in the Well table so that the system can report wells injecting into and producing from any pool

A pool is defined by the combination of the oil or gas field in which the pool is located together with the formation or formations that comprise the pool. The system allows for entering multiple formations per pool. Formations must be entered into the Geologic Formation table and Fields into the Field table before pools can be entered into the system.

The Pool table was designed to store a great deal of information on each pool. Only the Pool Number is mandatory. When the cursor is positioned in a data entry field, a brief description of the data element is displayed in the lower-left corner of the screen. Most data fields in the Pool/Reservoir form are self-explanatory. Data elements that require further explanation are described below.

Oil/Gas Designation

A pool can be designated as being primarily 'O'il or 'G'as'.

Oil Indicator

Click to place an 'X' in this box if the pool produces oil.

Associated Gas Indicator

Click to place an 'X' in this box if the pool produces associated gas.

Non-Associated Gas Indicator

Click to place an 'X' in this box if the pool produces non-associated gas.

Unitized

Click to place an 'X' in this box if the pool is unitized.

Pressure Maintenance

Click to place an 'X' in this box if a pressure maintenance program is in existence for the pool.

Field Rules

A comment box is provided for entering information on special field rules for the pool or reservoir. This memo field can be used for entering the board order numbers of the field rules, brief summaries of the rules, or the verbatim text of the rules.

Rigs Form

The Rigs table is designed to store limited information on each rig operating within your jurisdiction. The Rigs form is used to update information in the Rigs Table.

The Rigs form is accessed via the RBDMS Menu Bar at the top of the screen by selecting Forms, Reference Tables, Rigs.

States that perform rig BOPE tests and inspections will need to enter information on all rigs operating within the state. This table is not mandatory, and states that do not perform rig inspections are not required to enter data into this table.

Driller Number

The number of the driller responsible for the rig. The driller must have been entered into the Company table before the driller's rigs can be added to the Rig table.

Rig Number

The driller's rig number. The combination of the Driller Number and Rig Number is used to uniquely identify each rig.

Status

The status of the rig. A= Active, I = Inactive.

Description

A brief description of the rig and any additional comments.

Drillsites

The Drillsite table is designed to store limited information on each drillsite within your jurisdiction. This table was included in the system to meet the needs of Alaska where many wells are drilled from a single drillsite and the drillsite plays an important role in accounting for oil and gas production. Most other states will not use this table.

The Drillsite table is updated using standard Microsoft Access datasheet maintenance screen. The Drillsite table is selected via the RBDMS Menu Bar at the top of the screen by selecting Forms, Reference Tables, Drillsites.

Sales Code

The two digit Sales Code assigned by the state.

Accounting Group

The three digit Accounting Group assigned by the state. The combination of Sales Code plus Accounting Group uniquely identifies each drillsite. If your state assigns wells to drillsites, each well is given a sales code and accounting group on page two of the well form. Drillsites must be added to the Drillsite table before wells are updated with drillsite information.

Drillsite Name

The 20 character drillsite name.

Counties

The RBDMS County table stores information on all counties in your state and has the ability to store data on counties in adjacent states when you need to enter oil fields and wells located in adjoining states. In Alaska, the County table will be used to store USGS quadrangle numbers and names instead of counties. The County table is very stable, and once established, will rarely be modified.

Counties are entered using the standard Microsoft Access datasheet maintenance screen. To enter counties:

- Click on **Window** at the top of the screen in the RBDMS Menu Bar;
- Click on **1 Database RBDMS**;
- Click on **Table** at the left side of the database window;
- Click on **COUNTY** to select the County table;
- Click on **OPEN** to open the datasheet for data entry.

State Number

The two digit API state number for the state in which the county is located.

API County Number

The three digit API county number assigned to each county. In Alaska, enter the three digit quadrangle number.

FIPS County Number

The three digit Federal Information Processing Standards county number.

County Name

The name of the county using a maximum of 20 characters. In Alaska, enter the USGS quadrangle name.

State Abbreviation

The standard US Postal Service 2 character abbreviation for the state in which the county is located.

Reports

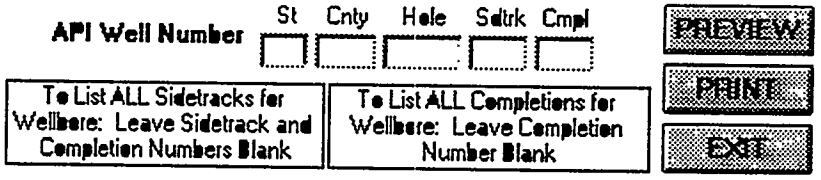
RBDMS reports are accessed from the Reports menu. The reports menu items are grouped according to report type. Report types with multiple report options will display a sub-menu listing the reports available within the report group.

Wells

Reports with well information.

Well Comprehensive Data

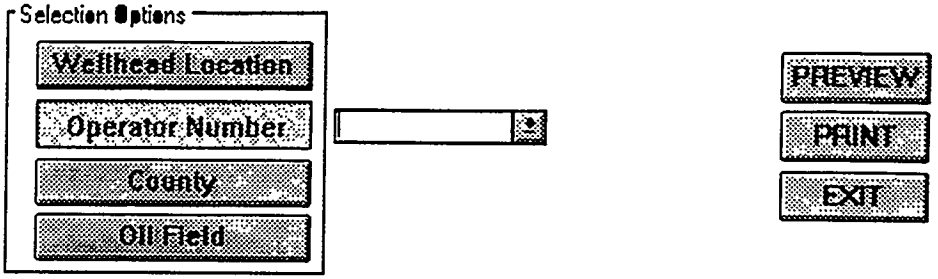
This report will list all well construction and well history data stored in the system for a specified well. If a well has multiple sidetracks and completions, you may run the report for a specific sidetrack and completion or for all sidetracks and completions for the wellbore. The following screen will be displayed when you run the report. To list all sidetracks for the well, leave the sidetrack and completion numbers blank.



Well Summary Reports

This report will list summary well data on selected wells. When you run the report. you will be presented with the following screen. You may run the report for a specified Location, Operator, County, or Field. The report will list all wells that meet your selection criteria.

When you run the report for a specified location, you will be prompted to enter the desired section, township, range, and principal meridian. If you leave the section number blank, the report will include all wells in the specified township and range.



Drilling Statistics

This report will compute and print Monthly, Quarterly, and Annual drilling statistics that summarize drilling activity in the state. Information printed in the report will include the number of new wildcat and development wells completed by field, county, and operator and classified by dry holes, oil wells, and gas wells. The report will also include the number of drilling permits approved and wells plugged and abandoned during the time period selected by the user.

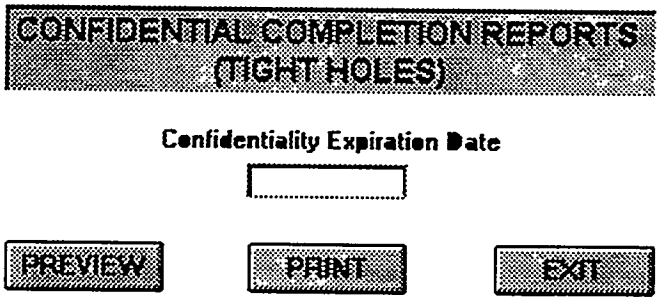
List of Sour Wells by County

This report will list Sour Gas (H2S) wells by county. The report may be run for all counties in the state or for a single county.

Tight Holes

When a well is completed, the operator must submit a completion report and logs, but states allow the operator to keep the reported information confidential for a certain period of time. Wells for which the operator has elected to keep completion reports confidential are commonly referred to as 'tight holes'. This report lists wells with confidential completion data whose period of confidentiality has expired. The purpose of this report is to ensure that completion reports and logs are entered into the system after the period of confidentiality has expired.

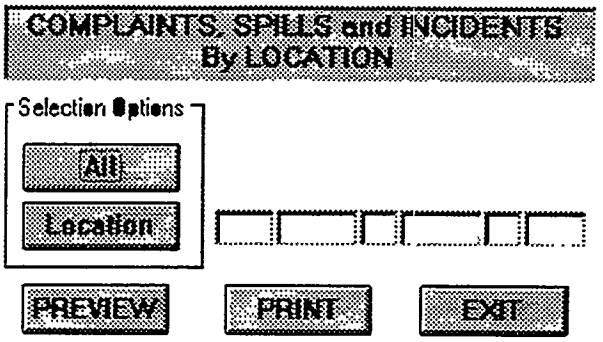
When you run the report you will be prompted to enter a Confidentiality Expiration Date. The report will list all tight holes whose period of confidentiality has expired prior to the entered date.



Incidents

This report lists information on Complaints, Spills, and Incidents by location.

When you run this report, the following screen is displayed. You may run the report for all Complaints, Spills, and Incidents or for Complaints, Spills, and Incidents that have occurred within a specific location. When you run the report for a specific location, you will be prompted to enter the desired section, township, range, and principal meridian. If you leave the section number blank, the report will include all Complaints, Spills, and Incidents in the specified township and range.



Expired Permits and Delinquent Forms

This program will print letters to operators listing wells for which permits have expired, or for which there are missing forms or logs. The user will be prompted to enter a date, and the system will list permits that have expired, and reports that are delinquent, prior to the date entered by the user.

The system determines expired permits by looking for a blank spud date and a permit expiration date earlier than the date entered by the user. The well history file is also processed to determine wells with delinquent subsequent reports such as, Plugging Reports, Completion Reports, Transporter Certificates, and Sundry Notices. Missing logs are determined by processing the Date Logs Run and Date Logs Received data fields in the Logs table.

List Delinquent Idle Well Reports

This program will print letters to operators listing delinquent Idle Well Reports. The Well Status field and the Frequency of Idle Well Reports field are used in combination with the Idle Well Report Date of the last submitted idle well report to determine wells with delinquent idle well reports.

TA Wells Past Approval End Date

In some states, approval must be obtained for wells with a status of 'temporarily abandoned' (TA). Information on the approval of TA status for each TA'd well is stored in the Idle Well Reports table.

This report lists all TA wells that either do not have an approval or for which the approval has expired

UIC Reports

Reports that include UIC information

Permit Data Report

This report presents detailed information pertaining to individual Class II UIC permits on a Well-by-Well basis.

AOR Summary Report

This report lists a summation of Area of Review tracking data as stored in the AOR Table. The report provides information on the type of AOR study, radius of pressure influence, as well as information pertaining to wells identified within the AOR study area.

Wells Within AOR's

This report lists a single AOR and all of the wells covered by the AOR.

Pressure Test Form

This report includes general well data and previous MIT information. It also includes a form with spaces to report current well data and testing information.

APM Tracking Report

This report presents tracking information pertaining to wells using annulus pressure monitoring either in conjunction with another internal mechanical integrity test or as a stand-alone internal mechanical integrity test, including minimum required annulus pressures.

IMIT Tracking Report

This report presents tracking data and information pertaining to internal mechanical integrity tests performed on Class II injection wells.

EMIT Well Failure Summary

This report presents information pertaining to External Mechanical Integrity Test Failures and includes compliance tracking dates required for well repairs or other corrective actions.

EMIT Results

This report presents information pertaining to External Mechanical Integrity Testing Results and includes important test dates to assist in schedule evaluation and planning.

Injection Monitoring Reports

This report presents monitoring and related permit data for Class II injection wells on a month-by-month basis depending on selection criteria chosen upon activating this report function from RBDMS.

Inj. Pressures/Rate > Permitted

This report presents information pertaining to Class II injection well in which records show either (or both) injection pressures and flow rates have exceeded permitted or otherwise allowed maximums.

EPA 7520 Reports

EPA 7520 Part I: Permit Review and Issuance/Wells in Area of Review Report

The 7520 Part I report is used to list data automatically assessed and compiled from several database tables within RBDMS for reporting purposes to EPA.

EPA 7520 Part II-a: Compliance Evaluation (all applicable wells)

The 7520 Part II-a report is used to list data automatically assessed and compiled from several database tables within RBDMS for reporting purposes to EPA.

EPA 7520 Part II-b: Compliance Evaluation, Significant Noncompliance (all applicable wells)

The 7520 Part II-b report is used to list data automatically assessed and compiled from several database tables within RBDMS for reporting purposes to EPA.

EPA 7520 Part III: Inspections/Mechanical Integrity Testing Report

The 7520 Part III report is used to list data automatically assessed and compiled from several database tables within RBDMS for reporting purposes to EPA.

EPA 7520 Part IV:Quartery Exceptions List (all applicable wells)

The 7520 Part IV report is used to list data automatically assessed and compiled from several database tables within RBDMS for reporting purposes to EPA.

Environmental Risk Analysis

Levels of Protection

This report calculates a "RISK CATEGORY" for individual wells based on a Levels Of Protection Analysis. Details of this Analysis are included in the RBDMS Users Manual. If there is not sufficient data maintained in RBDMS for this analysis, no RISK CATEGORY will be assigned.

Risk Probability

This report calculates a "RISK PROBABILITY" for a group of wells based on the MIT results. The user must enter at least one field into the "Sort" subform in order to group wells.

Inactive UIC Well Report

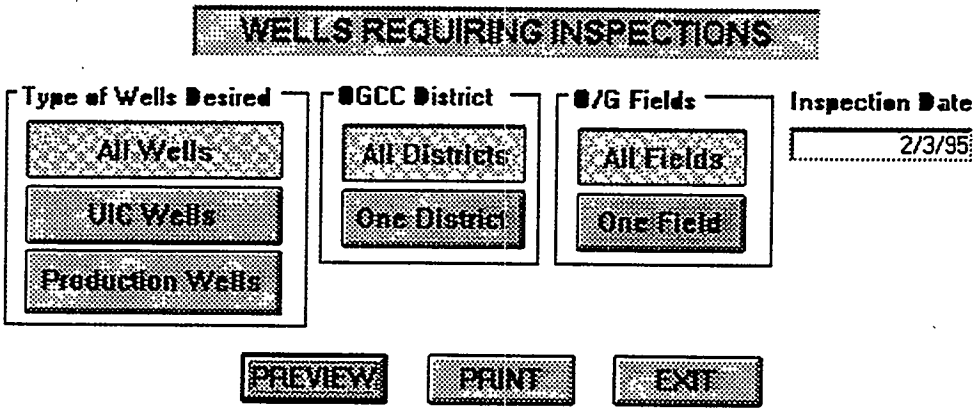
This report presents information on inactive Class II injection wells, including wellhead location and other information needed for tracking purposes.

Inspections Reports

Wells Requiring Inspections

This report lists all Wells, UIC Wells, or Only Production Wells that have not been inspected since the Inspection Date specified by the user. The purpose of this report is to assist in scheduling inspections. If a well has had any type of inspection after the Inspection Date specified by the user, the well will not appear in the report. If a well has not been inspected since the date specified, but the well is scheduled for an inspection, it will appear in the report.

The following screen is presented to the user when the report is run. Select the Type of Wells, District, Oil/Gas Field, and the desired date to be used in printing the report.



Plugged Wells Requiring Surface Restoration Inspections

This report lists Plugged and Abandoned wells for which surface restoration inspections have not been performed. The purpose of this report is to assist in scheduling location clearance and surface restoration inspections.

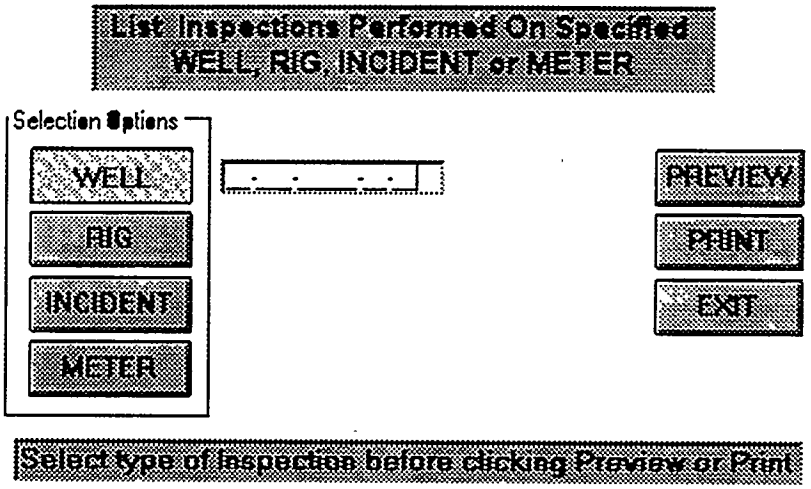
The report lists all wells with a Plugged and Abandoned date greater than the Plugged and Abandoned date specified by the user that have not had a surface restoration inspection performed since the well was plugged and abandoned. If a surface restoration inspection has not been performed, but the well is scheduled for such an inspection, information pertaining to the scheduled inspection will be included in the report.

When the report is run, the user is presented with the following selection screen. To provide for systems that contain wells plugged and abandoned before the implementation of RBDMS and for which surface restoration inspections have not been entered into the system, the user may specify a plugged and abandoned date. Wells P&A'd before that date will not be included in the report.



Inspections Performed for a Well, Rig, Incident, or Meter

This report lists the history of all inspections performed for a specified Well, Rig, Incident or Meter. When you run this report, you will be presented with the following screen. First use the mouse to indicate whether you want to run the report for a well, rig, incident, or meter. Then enter the API Well Number for a well, Operator and Rig Number for a rig, Incident Number for an incident, or Meter number for a meter.



Inspection Statistics

This report will tabulate and print inspection statistics for inspections performed during the time period specified by the user.

Failed Inspections Requiring Remedial Action

This report lists all failed inspections for which the Date Remedied has not been entered. The report uses the Date Remedied in the Comply table if a Compliance record has been written for the Inspection, or the Date Remedied in the Inspection Table if a Compliance record has not been written. The report is sorted by District and Operator Name.

Active Rigs Showing Last BOP Inspection Date

This report lists all inspections that have been performed for each active rig. Inspections for each rig are sorted in descending order showing the most recent inspection at the top of the list.

List Inspection Fail Codes and Descriptions

This report lists Inspection Fail Codes for all Inspection Types or for a specified Type of Inspection.

Click on the button indicating whether you want to list Fail Codes for all Inspection Types or for a Single Inspection Type. If the report is for a single inspection type, use the combo box to select the Type of Inspection desired.

Violations Reports

Reports with violation information.

Compliance (Comprehensive)

This report presents a comprehensive listing of data stored in the RBDMS COMPLIANCE Table.

Enforcement Status Report

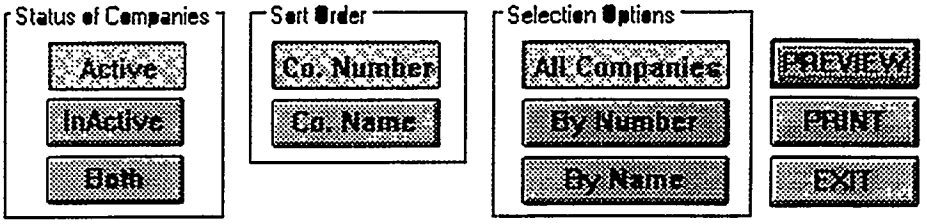
This report presents tracking information pertaining to enforcement actions, their status, penalties assessed, and whether or not the violation has been classified as Significant Non-Compliance (SNC).

Reference Reports

Reports for reference / support tables.

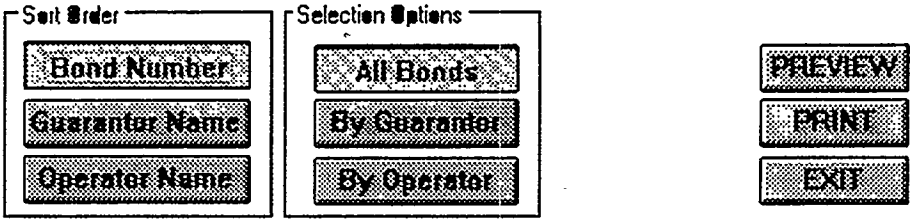
Companies

This report lists Active, Inactive, or All companies in the COMPANY Table. The report can be sorted by Company Number or by Company Name, and requested for All companies, a range of Company Numbers, or for a range of Company Names. The following screen is presented to the user when the report is run.



Bonds

This report lists all Bonds or all Bonds for a specified Operator or Guarantor. The report can be sorted by Operator name, Guarantor name, or State Bond Number. The following screen is presented to the user when the report is run.



Wells Covered by Each Bond

This report lists all Wells covered by the bond specified by the user. Wells covered by the bond are sorted by County, Field, and API Well Number. Enter the Bond Number or use the combo box to select the desired bond.

Oil and Gas Fields

This report lists all Oil and Gas Fields by State Field Number or alphabetically by Field Name depending upon the button selected by the user.

Geologic Formations

This report lists all Geologic Formations by State Formation Code, AAPG Formation Code, Industry Formation Code, or by Formation name depending upon the button selected by the user.

Pools/Reservoirs

This report lists all Pools/Reservoirs sorted by Pool Number, State Oil and Gas Field Number, or Pool Name depending upon the button selected by the user. For each pool, the report lists the Geologic Formations contained within the Pool.

Rigs

This report lists all Rigs sorted by Driller and Rig Number.

Drillsites

This report list Drillsites sorted by Sales Code and Accounting Group.

Counties

This report lists Counties by API County Number or alphabetically by County Name depending upon the button selected by the user. In Alaska, the County table is used to store USGS quadrangle numbers and names instead of counties.

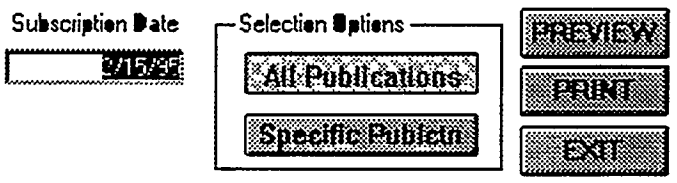
Company Mailing Labels

This report prints mailing labels using the company names and addresses stored in the Company table. You may select the types of companies for which mailing labels are to be printed by clicking on the check boxes alongside of each company type that you wish to include in the report. If, for example, you want to print labels for both Operators and Drillers, click on the appropriate check boxes so that X's appear in the check boxes for each of these Company Types.

The report is designed to print continuous one-across labels with a size of 4" by 1 7/16". The label size may be modified by running the report and then clicking on the FILE followed by the PRINT SETUP menu bar menu picks:. Once you are in PRINT SETUP, click on the MORE button.

Publication Mailing Labels

This report prints mailing labels for mailing agency publications. When you run the program, the following screen is presented so that you may specify the type of publication and the subscription cutoff date. If, for example you enter a subscription date of 04/10/95, labels will only be printed for publication subscriptions that are valid for that date. Data on publication subscription are entered via the Company form.



Publication by Company

This report lists the Publications for each Company in the Company table. The user may specify whether the report is to include all publications, publications that are paid through the date entered by the user, or publications that have expired prior to the specified date.

Bill Expiring Subscriptions

This report will print notices of expiring publication subscriptions for publications expiring between the dates specified by the user. A single notice will be generated for each subscriber listing all expiring publications. Notices are designed to be printed on agency letterhead and for use in window envelopes. Some customization of the notices may be required to match the layout of your agency's letterhead and envelopes.

You may customize a message to be included in the letter. The customized message is stored in the Statements table under the report name RPTBILLSUBS.

Appendix

Click on the table name to view index and field information.

AOR

Indexes:

Index Name	Fields in Index
PrimaryKey	AOR_NO
Fields:	

Fields:

Field Name	Type	Width	Description
AOR_NO	Long	4	Counter field to uniquely identify AOR
MULTI_WL	Yes/No	1	Has AOR been done for Multiple Wells (Yes or No)?
AOR_VAR	Yes/No	1	Has an AOR Variance been approved for this well(s)?
UIC_Permit	Text	10	State UIC Permit #
API_WELLNO	Text	14	API Well Number
DT_APPROV	Date/Time	8	Date AOR Investigation Approved by State
TYP	Text	4	Type of AOR Demonstraction Performed
RADIUS	Double	8	Radius of the AOR in Miles
DT_RADPRES	Date/Time	8	Date of Radius of Pressure Influence Calculated
RAD_PRSINF	Double	8	Radius of Pressure Influence in Miles
INVEN	Yes/No	1	Is AOR Well Inventory Complete?
TOPOMAP	Yes/No	1	Has a Topographic Map been Submitted showing the well or EOR project with appropriate AOR boundaries?
ABANWL	Double	8	Number of Wells in the AOR - Abandoned

WLOTHR	Double	8	Number of wells in the AOR - not Abandoned
DFABAN	Double	8	Number of Defective wells that are in the AOR - Abandoned
CAABAN	Double	8	Number of Abandoned Wells in AOR Requiring Corrective Action
DFOTHR	Double	8	Number of Defective Wells in AOR (i.e., that are not abandoned)
CAOTHR	Double	8	Number of wells in AOR Requiring Corrective Action - not Abandoned
IZABAN	Double	8	Number of Abandoned Wells in the AOR that Penetrate the Injection Zone.
IZOTHR	Double	8	Number of Non-Abandoned Wells in the AOR that penetrate the injection zone.
PWSWLS	Double	8	Number of Public Water Supply Wells in the AOR
DWWLS	Double	8	Number of Drinking Water Wells Identified in the AOR
CSGREP	Double	8	# of wells in AOR with casing repaired or recom. as a result of the investigation.
PLGABN	Double	8	# active wells in the AOR that were plugged/abandoned as a result of the AOR
REPLUG	Double	8	# abandoned wells in the AOR that have been re-plugged as a result of the AOR.
CASUM	Double	8	# of wells in the AOR with other corrective action as a result of the AOR
WHPA	Yes/No	1	Does AOR intersect well head protection area?
DT_MOD	Date/Time	8	Date the current record was last modified.
COMMENT	Memo	0	Comments
DTAPPLREC	Date/Time	8	Date AOR Application Received
DTAPPLCOMP	Date/Time	8	Date AOR Application Complete

AORWELLS

Indexes:

Index Name	Fields in Index
PrimaryKey	AOR_NO,API_WELLNO
Reference3	AOR_NO

Fields:

Field Name	Type	Width	Description
AOR_NO	Long	4	Long integer that uniquely identifies AOR
API_WELLNO	Text	14	API Well Number of well included in AOR

BONDS

Indexes:

Index Name	Fields in Index
GAURANTOR	GUARANTOR
OPERNO	OPERNO
PrimaryKey	BONDNO

Fields:

Field Name	Type	Width	Description
BONDNO	Text	10	
PURPOSE	Text	1	
TYP_INST	Text	2	
STATUS	Text	2	
OPERNO	Double	8	
GUARANTOR	Double	8	
GUAR_BNDNO	Text	20	
AMOUNT	Long	4	
MAX_WELLS	Integer	2	
DT_EFFECT	Date/Time	8	
DT_CANCEL	Date/Time	8	
DT_EXPIRE	Date/Time	8	
DT_LSTRVWD	Date/Time	8	
DT_RELEASD	Date/Time	8	
COMMENT	Memo	0	
DT_MOD	Date/Time	8	

BONDWELL

Indexes:

Index Name	Fields in Index
PrimaryKey	BONDNO,API_WELLNO
Reference8	BONDNO

Fields:

Field Name	Type	Width	Description
BONDNO	Text	10	
API_WELLNO	Text	14	

CEMENT

Indexes:

Index Name	Fields in Index
PrimaryKey	API_WELLNO,CSG_STRING,BOC
Reference16	API_WELLNO

Fields:

Field Name	Type	Width	Description
API_WELLNO	Text	14	API Well Number
CSG_STRING	Text	4	Casing String Cemented
BOC	Long	4	Bottom of Cement Interval
TOC	Long	4	Top of Cement Interval
METH_DETER	Text	1	Method by which Top was determined ('Measured, 'Theoretical, Blank)
DT_CMT	Date/Time	8	Date Cemented
DT_MOD	Date/Time	8	Date Last Modified

CEMENTCLS

Indexes:

Index Name	Fields in Index
PrimaryKey	API_WELLNO,CSG_STRING,BOT,CLASS_CMT
Reference14	API_WELLNO,CSG_STRING,BOT

Fields:

Field Name	Type	Width	Description
API_WELLNO	Text	14	API Well Number
CSG_STRING	Text	4	Casing String Cemented
BOT	Long	4	Bottom of Cemented Interval
CLASS_CMT	Text	2	Class of Cement
SACKS	Long	4	Sacks of Cement
YIELD	Single	4	Yield CUFT/Sack

Codes

Indexes:

Index Name	Fields in Index
PrimaryKey	FLD,Code

Fields:

Field Name	Type	Width	Description
FLD	Text	10	
Code	Text	10	
Definition	Text	50	

Codes_Master

Indexes:

Index Name	Fields in Index
PrimaryKey	FLD

Fields:

Field Name	Type	Width	Description
FLD	Text	10	
Description	Text	50	
Source	Text	255	
Comments	Text	255	
Max_Len	Integer	2	
Tables	Text	35	

COMPANY

Indexes:

Index Name	Fields in Index
PrimaryKey	CONO

Fields:

Field Name	Type	Width	Description
CONO	Double	8	Company number
STAT	Text	1	Status
DOE_OPNO	Text	10	DOE Operator Number
CONAME	Text	30	Company Name
FIRST_NAME	Text	20	First Name
CONTACT	Text	20	Contact
TITLE	Text	20	Contact Title; (President, Director of GWPC, Surface Management Director, etc.)
ADDR1	Text	30	Address Line 1
ADDR2	Text	30	Address Line 2
CITY	Text	15	City
STATE	Text	2	State
ZIP1	Text	5	Zip Code 1

ZIP2	Text	4	Zip Code 2
COUNTRY	Text	15	Country
PHONE	Text	12	Phone Number
PH_EXT	Text	5	Phone Extension
FAX	Text	12	FAX Number
OPER	Yes/No	1	Operator
INJ_OPER	Yes/No	1	Injection Operator
DRILLER	Yes/No	1	Driller
BOND_CO	Yes/No	1	Bonding Company
OIL_TRANS	Yes/No	1	Oil Transporter
GAS_GATHR	Yes/No	1	Gas Gatherer
WATR_HAUL	Yes/No	1	Water Hauler
CSNG_PULLR	Yes/No	1	Casing Puller
MISC1	Yes/No	1	Miscellaneous 1
MISC2	Yes/No	1	Miscellaneous 2
MISC3	Yes/No	1	Miscellaneous 3
MISC4	Yes/No	1	Miscellaneous 4
MISC5	Yes/No	1	Miscellaneous 5
MISC6	Yes/No	1	Miscellaneous 6
ORGRPT_RQD	Yes/No	1	Organization Report Required?
ORGRPT_DT	Date/Time	8	Date Organization Report Received
FINRPT_DT	Date/Time	8	Date Last Financial Report Received
SECST_DT	Date/Time	8	Date Qualified with Secretary of State
PROBLEM	Text	1	Problem Company Indicator
COMMENT	Memo	0	Comments
DT_MOD	Date/Time	8	Modification Date
USER_ID	Text	8	User ID

Comply

Indexes:

Index Name	Fields in Index
DATE_COMPL	DATE_COMPL
DT_ENFORCE	DT_ENFORCE
DT_VIOL	DT_VIOL
ENF_TYPE	ENF_TYPE
PrimaryKey	Comply_ID

Fields:

Field Name	Type	Width	Description
Comply_ID	Long	4	Unique ID for compliance record
INSPECT_ID	Long	4	Key to the related record in inspection table
API_WELLNO	Text	14	API Well Number
DT_VIOL	Date/Time	8	Date Violation Occurred
DT_NOTE	Date/Time	8	Date Operator Notified
TYPE_NOTE	Text	3	Type of Notification
DT_ENFORCE	Date/Time	8	
ENF_TYPE	Text	2	Type of Enforcement Action Taken
ORDER_NO	Double	8	Board Order Number for Action
DOC_NUM	Text	15	Docket Number
SNC	Text	1	
METH_SNC	Text	3	Method of Determining SNC
DT_COMPREQ	Date/Time	8	Date Compliance Required
CS_WRITEN	Text	1	Compliance Schedule Written
DATE_COMPL	Date/Time	8	
DT_FINAL	Date/Time	8	Date Enforcement Action Final
DTWITHDRAW	Date/Time	8	Date Enforcement Action Withdrawn
DT_APFD	Date/Time	8	Date Appeal Filed
DT_APCD	Date/Time	8	Date Appeal Canceled
DT_APAD	Date/Time	8	Date Appeal Affirmed
DT_ASSED	Date/Time	8	Date Penalty Assessed
ASSESSED	Double	8	Penalty Assessed ($)
DT_COLL	Date/Time	8	Date Penalty Collected
COLLECTED	Double	8	Penalty Collected ($)
DT_MOD	Date/Time	8	Date Record Updateed
COMMENT	Memo	0	Comments

Comply_CA

Indexes:

Index Name	Fields in Index
PrimaryKey	Comply_ID,TYPE_CA
Reference23	Comply_ID

Fields:

Field Name	Type	Width	Description
Comply_ID	Long	4	Unique ID for compliance record
TYPE_CA	Text	3	Type of Corrective Action
COST_CA	Single	4	Cost of Corrective Action

Comply_Viol

Indexes:

Index Name	Fields in Index
PrimaryKey	Comply_ID,VIOL_TYPE
Reference7	Comply_ID
VIOL_TYPE	VIOL_TYPE

Fields:

Field Name	Type	Width	Description
Comply_ID	Long	4	Compliance ID
VIOL_TYPE	Text	6	Violation Type

COUNTY

Indexes:

Index Name	Fields in Index
Index1	STATE_NO,CNTY_APINO
PrimaryKey	STATE_NO,CNTY_APINO

Fields:

Field Name	Type	Width	Description
STATE_NO	Byte	1	State Number
CNTY_APINO	Integer	2	County API Number

FIPS	Integer	2	FIPS County Number
NAME	Text	20	County Name
ST_ABBR	Text	2	State Abbreviation

DRILLSITE

Indexes:

Index Name	Fields in Index
PrimaryKey	SALES_CD,ACTG_GRP

Fields:

Field Name	Type	Width	Description
SALES_CD	Integer	2	Sales Code
ACTG_GRP	Integer	2	Accounting Group
NAME	Text	20	Drill Site Name

Emit

Indexes:

Index Name	Fields in Index
PrimaryKey	API_WELLNO,DT_TEST
Reference25	API_WELLNO

Fields:

Field Name	Type	Width	Description
API_WELLNO	Text	14	API Well Number
DT_TEST	Date/Time	8	Date EMIT Performed
TST_REAS	Text	8	Reason for External Mechanical Integrity Test
EMIT_RSLT	Text	1	EMIT Result
FAIL_TYPE	Text	3	Type of EMI Failure

FAIL_CAUS	Text	7	Cause of Failure
REPAIR_DUE	Date/Time	8	Date EMI Repair Completion Due
REPAIR_COM	Date/Time	8	Date Repair Completed
REPAIR_S_F	Text	1	Repair Result (i.e., success or failure)
WIT_STATE	Text	1	EMIT Witnessed by State?
INSP_NAME	Text	20	Inspector Name
DT_MOD	Date/Time	8	Date Record Updated or Modified
COMMENT	Memo	0	EMIT Comments

Emitmeth

Indexes:

Index Name	Fields in Index
PrimaryKey	API_WELLNO,DT_TEST,EMIT_METH
Reference26	API_WELLNO,DT_TEST

Fields:

Field Name	Type	Width	Description
API_WELLNO	Text	14	API Well Number
DT_TEST	Date/Time	8	Test Date
EMIT_METH	Text	4	EMIT Method

FIELDCNTY

Indexes:

Index Name	Fields in Index
PrimaryKey	ST_FLDNO,STATE_NO,CNTY_APINO
Reference21	ST_FLDNO

Fields:

Field Name	Type	Width	Description

ST_FLDNO	Long	4	State Field Number
STATE_NO	Byte	1	API State Number
CNTY_APINO	Integer	2	API County Number

FIELDS

Indexes:

Index Name	Fields in Index
NAME	NAME
PrimaryKey	ST_FLDNO
US_FLDNO	US_FLDNO

Fields:

Field Name	Type	Width	Description
ST_FLDNO	Long	4	State Field Number
US_FLDNO	Long	4	US DOE Field Number
NAME	Text	25	Field Name
SEC	Byte	1	Discovery Well Section
TWPN	Single	4	Discovery Well Township
TWPD	Text	1	Discovery Well Township Direction ('N'orth, 'S'outh)
RNGN	Single	4	Discovery Well Range
RNGD	Text	1	Discovery Well Range Direction ('E'ast, 'W'est)
PM	Text	3	Discovery Well Principal Meridian
YR_DISC	Text	4	Year Discovered
MO_DISC	Text	2	Month Discovered
DAY_DISC	Text	2	Day Discovered
YR_ABD	Text	4	Year Abandoned
OIL	Yes/No	1	Oil Indicator
GAS_A	Yes/No	1	Gas, Associated Indicator
GAS_N	Yes/No	1	Gas, Nonassociated Indicator
HAZ_CODE	Yes/No	1	Hazardous Conditions Indicator
FLD_RULES	Yes/No	1	Special Field Rules Indicator
COMMENTS	Memo	0	Hazardous Condition & Special Field Rules Comments
DT_MOD	Date/Time	8	Date Record Last Modified

FORMATN

Indexes:

Index Name	Fields in Index
INDFRM_CD	INDFRM_CD
NAME	NAME
PrimaryKey	ST_FMTN_CD
ST_FMTN_CD	ST_FMTN_CD

Fields:

Field Name	Type	Width	Description
AAPG_CD	Text	8	AAPG Formation Code - Consists of Geologic System + Geologic Series + Formation Abbreviation + Zone Code
INDFRM_CD	Text	8	Industry Formation Code
ST_FMTN_CD	Text	8	State Formation Code - Codes for formations that may currently be used by existing state systems
NAME	Text	40	Formation Name
LITHO	Memo	0	Lithology

FORMTOPS

Indexes:

Index Name	Fields in Index
PrimaryKey	API_WELLNO,FMTN_CD,TOP
Reference5	API_WELLNO

Fields:

Field Name	Type	Width	Description
API_WELLNO	Text	14	API Well Number

FMTN_CD	Text	8	Formation Code
TOP	Long	4	Depth of the Top of Formation
METH_OBTND	Text	1	Method by which Top was obtained
DT_MOD	Date/Time	8	Date Last Updated

IDLE

Indexes:

Index Name	Fields in Index
PrimaryKey	API_WELLNO,DT_RPT
Reference31	API_WELLNO

Fields:

Field Name	Type	Width	Description
API_WELLNO	Text	14	API Well Number
DT_RPT	Date/Time	8	Report Date
DT_APPREND	Date/Time	8	Approval Ending Date for Temporarily Abandoned Wells
FUT_UTIL	Text	5	Future Utility
DT_LASTPRD	Date/Time	8	Date of Last Production
DT_ABD_SCH	Date/Time	8	Date Scheduled for Abandonment
ST_FL_LVL	Long	4	Static Fluid Level
ST_FL_MTHD	Text	2	Method Used to Determine Static Fluid Level
PRS_TBG	Integer	2	Pressure Tubing
PRS_TBG_PRDCSG	Integer	2	Pressure Tubing/Production Casing
PRS_PRDCSG_SURFCSG	Integer	2	Pressure Production Casing/Surface Casing
DT_MOD	Date/Time	8	Date Record Added or Modified

Imit

Indexes:

Index Name	Fields in Index
PrimaryKey	API_WELLNO,DT_TEST
Reference24	API_WELLNO

Fields:

Field Name	Type	Width	Description
API_WELLNO	Text	14	API Well Number
DT_TEST	Date/Time	8	Date of the last recorded IMIT
TST_REAS	Text	6	Reason For Test
IMIT_METH	Text	4	IMIT Method Code
IMIT_ITP	Double	8	IMIT Initial Test Pressure
IMIT_FTP	Double	8	IMIT Final Test Pressure
IMIT_TD	Double	8	IMIT Test Duration
TST_RESLT	Text	1	
MON_RSLT	Text	1	Annulus Monitoring Results
WL_STATUS	Text	1	
INJ_RATE	Double	8	Injection Rate During IMIT
INJ_PRESS	Double	8	Injection Pressure (psig)
REPAIR_DUE	Date/Time	8	Repair Completion Due Date
REPAIR_COM	Date/Time	8	Repair Completion Date
REP_S_F	Text	1	Repair Result
FAIL_TYPE	Text	3	Type of IMI Failure
FAIL_CAUS	Text	7	Cause of IMI Failure
MITWITNESS	Text	1	
INSPTNAME	Text	20	Inspector Name
DT_MOD	Date/Time	8	Date Record Updated
COMMENT	Memo	0	Comments on IMIT

INCIDENTS

Indexes:

Index Name	Fields in Index
Index1	API_WELLNO,DT_INCDNT
Legal	PM,TWPD,TWPN,RNGD,RNGN,SEC
PrimaryKey	INCDNTNO

Fields:

Field Name	Type	Width	Description
INCDNTNO	Long	4	Incident Number
API_WELLNO	Text	14	API Well Number
SEC	Integer	2	Section
TWPN	Single	4	Township Number
TWPD	Text	1	Township Direction
RNGN	Single	4	Range Number
RNGD	Text	1	Range Direction
PM	Text	3	Principal Meridian
QTR	Text	8	Quarter-Quarter Location
LATTD	Double	8	Latitude (stored as a decimal)
LONGTD	Double	8	Longitude (stored as a decimal)
STATE_NO	Byte	1	State Number
CNTY_APINO	Integer	2	API County Number
ST_FLDNO	Long	4	State Field Number
CONO	Double	8	Company Number
DT_INCDNT	Date/Time	8	Date of Incident
TYP_INCDNT	Text	5	Type of Incident
VOL_SPILLD	Long	4	Volume spilled in barrels
UIC	Yes/No	1	UIC Related
EMERGENCY	Yes/No	1	Emergency
DT_NOTIFD	Date/Time	8	Date State Notified
TM_NOTIFD	Date/Time	8	Time State Notified
DT_RSPOND	Date/Time	8	Date State Response
TM_RSPOND	Date/Time	8	Time State Response
ACTION	Text	2	Action Taken
DT_RSLVD	Date/Time	8	Date Resolved
COMMENT	Memo	0	Comments
DT_MOD	Date/Time	8	Date Record Added or Modified

INSPECTION

Indexes:

Index Name	Fields in Index

PrimaryKey	INSPECT_NO,TYP_INSP
Reference11	INCDNTNO

Fields:

Field Name	Type	Width	Description
INSPECT_NO	Long	4	Inspection Number
API_WELLNO	Text	14	API Well Number
TYP_INSP	Text	2	Type of Inspection
DT_REQR	Date/Time	8	Date Required
DT_NOTIFY	Date/Time	8	Date Operator Notified
DT_SCHED	Date/Time	8	Date Scheduled
DT_PERFM	Date/Time	8	Date Performed
DURATION	Single	4	Duration of inspection in hours.
INSPECTOR	Text	15	Inspector Name
VIOL	Yes/No	1	Violation or Non-Compliance Identified
SNC	Yes/No	1	Was SNC identified?
DISTRICT	Text	8	OGCC District
ST_FLDNO	Long	4	State Field Number
DT_REMDYRQ	Date/Time	8	Date Remdy Required
DT_REMEDY	Date/Time	8	Date Problems Remedied
INCDNTNO	Long	4	Incident Number
COMPLY_NO	Long	4	Compliance Number
RESP_CONO	Double	8	Responsible Company Number (Operator or Driller)
RIGNO	Text	5	Rig Number
METER_NO	Text	12	Meter Number
COMMENT	Memo	0	Comments
DT_MOD	Date/Time	8	Date Record Updated

INSPFAIL

Indexes:

Index Name	Fields in Index
PrimaryKey	INSPECT_NO,TYP_INSPECT,FAILCODE
Reference29	INSPECT_NO,TYP_INSPECT
Reference30	TYP_INSPECT,FAILCODE

Fields:

Field Name	Type	Width	Description
INSPECT_NO	Long	4	API Well Number
TYP_INSPECT	Text	2	Type of Inspection
FAILCODE	Integer	2	Fail Code

INSPFLDESC

Indexes:

Index Name	Fields in Index
PrimaryKey	TYP_INSP,FAILCODE

Fields:

Field Name	Type	Width	Description
TYP_INSP	Text	2	Type of Inspection
FAILCODE	Integer	2	Fail Code
STATUS	Text	1	Indicates whether or not a Pass/Fail item is Active or Inactive
DESC	Text	35	Fail Code Description

LOGS

Indexes:

Index Name	Fields in Index
PrimaryKey	API_WELLNO,DT_RUN
Reference13	API_WELLNO

Fields:

Field Name	Type	Width	Description
API_WELLNO	Text	14	API Well Number

DT_RUN	Date/Time	8	Date Run
DT_RECVD	Date/Time	8	Date Log,Core,Sample or Blue Line Received
DT_SEPIA	Date/Time	8	Date SEPIA Received
DT_DIGITAL	Date/Time	8	Date Digital Received
TYP	Text	2	Log/Core/Cuttings
TOP	Long	4	Top of logged, sampled, or cored interval
BOT	Long	4	Bottom of logged, sampled or cored interval.
LOGSRUN	Text	30	Logs Run - Indicate logs run using standard abbreviations.
COMMENT	Memo	0	Comments
DT_MOD	Date/Time	8	Date Last Modified

MAILLABELS

Indexes:

Index Name	Fields in Index
PrimaryKey	STAT

Fields:

Field Name	Type	Width	Description
STAT	Text	1	Always A'ctive
OPER	Yes/No	1	Operator
INJ_OPER	Yes/No	1	Injection Operator
DRILLER	Yes/No	1	Driller
BOND_CO	Yes/No	1	Bonding Company
OIL_TRANS	Yes/No	1	Oil Transporter
GAS_GATHR	Yes/No	1	Gas Gatherer
WATR_HAUL	Yes/No	1	Water Hauler
CSNG_PULLR	Yes/No	1	Casing Puller
MISC1	Yes/No	1	Miscellaneous 1
MISC2	Yes/No	1	Miscellaneous 2
MISC3	Yes/No	1	Miscellaneous 3
MISC4	Yes/No	1	Miscellaneous 4
MISC5	Yes/No	1	Miscellaneous 5
MISC6	Yes/No	1	Miscellaneous 6

Monitor

Indexes:

Index Name	Fields in Index
PrimaryKey	API_WELLNO,Month,Year
Reference1	API_WELLNO

Fields:

Field Name	Type	Width	Description
API_WELLNO	Text	14	API Well Number
Month	Integer	2	Report Month
Year	Integer	2	Report Year
INJ_DAYS	Byte	1	Number of Days Injecting
VOL_LIQ	Long	4	Liquid Injection Volume for Period
VOL_GAS	Long	4	Gas Injection Volume for Period
MAXINJRT	Double	8	Maximum Injection Rate for Period
AVGINJRT	Double	8	Average Injection Rate for Period
MININJRT	Double	8	Minimum Injection Rate for Period
PRS_RES	Integer	2	Average Reservoir Pressure for reporting period
PRS_TBG_AV	Integer	2	Average Tubing (Injection) Pressure at Surface
PRS_TBG_MX	Integer	2	Maximum Tubing (Injection) Pressure at Surface
PRS_TC_MIN	Double	8	Minimum Tubing (Injection) Pressure at Surface
PRS_TC_AVE	Integer	2	Average Tubing/Casing Annulus Pressure at Surface
PRS_TC_MX	Integer	2	Maximum Tubing/Casing Annulus Pressure at Surface
PRS_CS_AV	Integer	2	Average Casing/Surface Casing Pressure
PRS_CS_MX	Integer	2	Maximum Casing/Surface Casing Pressure
OIL_SKIM	Integer	2	Barrels of Oil Skimmed
DT_MOD	Date/Time	8	Date record last modified
Adjust	Yes/No	1	Adjusted Report
DELINQ	Yes/No	1	Delinquent
RPT_FREQ	Byte	1	Report Frequency

REC_FREQ	Text	1	Recording Frequency
OPNO	Double	8	Operator Number
MAXALOWPR	Integer	2	Maximum Allowable Injection Pressure
MAXALOWRA	Double	8	Maximum Allowable Rate of Injection in Barrels per Day
RPT_STATUS	Text	1	Report Status
DT_RPT_REC	Date/Time	8	Date original report received

Monitor_Spec

Indexes:

Index Name	Fields in Index
PrimaryKey	API_WELLNO

Fields:

Field Name	Type	Width	Description
API_WELLNO	Text	14	API Well Number
RPT_FREQ	Byte	1	Report Frequency
REC_FREQ	Text	1	Recording Frequency
OPNO	Double	8	Operator Number
POOLNO	Long	4	Pool Number
ADJUST	Yes/No	1	Adjusted Report
CLASS	Text	2	Well Class
INJ_ZONE	Text	8	Formation Code of Injection Zone
INJ_FLUID	Text	4	Type of Injection Fluid
MAXALOWPR	Integer	2	Maximum Allowable Injection Pressure
MAXALOWRA	Double	8	Maximum Allowable Rate of Injection in Barrels per Day
RPT_STATUS	Text	1	Report Status
DT_RPT_REC	Date/Time	8	Date original report received
DT_MOD	Date/Time	8	Date record last modified

PERFS

Indexes:

Index Name	Fields in Index
PrimaryKey	API_WELLNO,TOP_MD
Reference9	API_WELLNO

Fields:

Field Name	Type	Width	Description
API_WELLNO	Text	14	API Well Number
TOP_MD	Long	4	Top of Perforated Interval
BOT_MD	Long	4	Bottom of perforated Interval
TOP_TVD	Long	4	Top of Perforated Interval - TVD
BOT_TVD	Long	4	Bottom of Perforated Interval - TVD
DT_PERF	Date/Time	8	Date Perforated
SHOT_DENS	Byte	1	Shots per Foot
DT_SQUEEZE	Date/Time	8	Date Squeezed
COMMENT	Memo	0	Comments
DT_MOD	Date/Time	8	Date Last Modified

POOL

Indexes:

Index Name	Fields in Index
PrimaryKey	POOLNO
Reference28	ST_FLDNO
ST_FLDNO	ST_FLDNO

Fields:

Field Name	Type	Width	Description
POOLNO	Long	4	Pool Number
POOL_NM	Text	30	Pool Name
ST_FLDNO	Long	4	State Field Number
YR_DISC	Integer	2	Year pool was discovered
OG_DSGNTN	Text	1	Oil/Gas Designation
OIL	Yes/No	1	Oil Indicator

GAS_A	Yes/No	1	Associated Gas Indicator
GAS_N	Yes/No	1	Non-Associated Gas Indicator
UNITIZED	Yes/No	1	Unitized
PRES_MAINT	Yes/No	1	Pressure Maintenance
RCVRY_MTHD	Text	5	Recovery Method
RCV_MTHSUB	Text	6	Recovery Method Sub-Category
PRI_DRIVE	Text	6	Primary Drive Mechanism
AREA	Long	4	Area of pool in acres
POROS	Single	4	Effective Porosity
PERM	Double	8	Intrinsic Permeability
NETPAY	Integer	2	Net Pay in Feet
INIT_OFVF	Double	8	Initial Oil Formation Volume Factor
CURR_OFVF	Double	8	Current Oil Formation Volume Factor
INIT_GFVF	Double	8	Initial Gas Formation Volume Factor
CURR_GFVF	Double	8	Current Gas Formation Volume Factor
OIL_GRAV	Single	4	Oil Gravity
GAS_GRAV	Double	8	Gas Gravity
INIT_GSBTU	Long	4	Initial Gas BTU
CURR_GSBTU	Long	4	Current Gas BTU
INIT_GOR	Long	4	Initial GOR
CURR_GOR	Long	4	Current GOR
INIT_WTRST	Single	4	Initial Water Saturation
CURR_WTRST	Single	4	Current Water Saturation
INIT_GASCF	Double	8	Inital Gas Compressibility Factor (Z)
CURR_GASCF	Double	8	Current Gas Compressibility Factor (Z)
INIT_RESPR	Long	4	Initial Reservoir Pressure
CURR_RESPR	Long	4	Current Reservoir Pressure
RES_TEMP	Integer	2	Reservoir Temperature (Fahrenheit)
TDS	Long	4	TDS of Water
H2S_PPM	Long	4	Hydrogen Sulfide PPM
FLD_RULES	Memo	0	Special Field Rules
COMMENT	Memo	0	Comment
DT_MOD	Date/Time	8	Date Last Modified

POOLFMTN

Indexes:

Index Name	Fields in Index

PrimaryKey	POOLNO,FMTN_CD
Reference22	POOLNO

Fields:

Field Name	Type	Width	Description
POOLNO	Long	4	Pool Number
FMTN_CD	Text	8	Formations contained within each pool

PRODTEST

Indexes:

Index Name	Fields in Index
PrimaryKey	API_WELLNO,DT_TEST,TYP_TEST,DST_NO

Fields:

Field Name	Type	Width	Description
API_WELLNO	Text	14	API Well Number
DT_TEST	Date/Time	8	Date of Test
TYP_TEST	Text	3	Type of Test
DST_NO	Byte	1	Drill Stem Test Number
PROD_MTHD	Text	1	Production Method
TOP	Long	4	Top of Interval Tested
BOT	Long	4	Bottom of Interval Tested
FMTN_CD	Text	8	Formation Code of Formation Tested.
CHOKE_SIZE	Single	4	Choke Size
DURATION	Single	4	Duration of Test
PRESS_TFLW	Long	4	Tubing Pressure Flowing
PRESS_TSI	Long	4	Tubing Pressure Shut-In
PRESS_CFLW	Long	4	Casing Pressure - Flowing
PRESS_CSI	Long	4	Casing Pressure - Shut-In
PRESS_BH	Long	4	Bottom Hole Pressure
PROD_OIL	Long	4	Oil Produced
PROD_GAS	Long	4	Gas Produced
PROD_WTR	Long	4	Water Produced

RATE_OIL	Long	4	Oil 24 Hour Rate
RATE_GAS	Long	4	Gas 24 Hour Rate
RATE_WTR	Long	4	Water 24-Hour Rate
OIL_GRAV	Single	4	API Gravity of Oil
TDS	Long	4	Total Dissolved Solids In MG/L
CHLORIDES	Long	4	Chlorides in MG/L
PH	Single	4	PH of Water Quality Sample
SPEC_GRAV	Single	4	Specific Gravity
REFER	Text	1	Reference for Interval Tested
COMMENT	Memo	0	Comments
DT_MOD	Date/Time	8	Date Last Modified

PUBLICATN

Indexes:

Index Name	Fields in Index
PrimaryKey	CONO,TYP_PUB
Reference17	CONO

Fields:

Field Name	Type	Width	Description
CONO	Double	8	Company Number
TYP_PUB	Text	8	Publication Type
DT_START	Date/Time	8	Publication Start Date
DT_END	Date/Time	8	Publication End Date
PD_AMT	Double	8	Publication Amount Paid
DT_PAID	Date/Time	8	Publication Date Paid
DT_MOD	Date/Time	8	Date Last Modified

RIGS

Indexes:

Index Name	Fields in Index
DRILLNO	DRILLNO
PrimaryKey	DRILLNO,RIGNO

Fields:

Field Name	Type	Width	Description
DRILLNO	Double	8	Driller Number
RIGNO	Text	5	Rig Number
STAT	Text	1	Status
DESCRIPTN	Memo	0	Description
DT_MOD	Date/Time	8	Date Last Modified

STATEMENTS

Indexes:

Index Name	Fields in Index
PrimaryKey	RPTNAME
RPTNAME	RPTNAME

Fields:

Field Name	Type	Width	Description
RPTNAME	Text	25	Name of the Report that creates the Letter or Notice which references this statement
DT_MOD	Date/Time	8	Modification Date
DESC	Text	50	Description of Statement or when and where it is used
STATEMENT	Memo	0	The Statement that will be printed

STRINGPIPE

Indexes:

Index Name	Fields in Index
PrimaryKey	API_WELLNO,TYP_PIPE,BOT,GRADE,WEIGHT
Reference15	API_WELLNO,TYP_PIPE,BOT

Fields:

Field Name	Type	Width	Description
API_WELLNO	Text	14	API Well Number
TYP_PIPE	Text	4	Type of Pipe
BOT	Long	4	Bottom
GRADE	Text	5	Casing Grade
WEIGHT	Single	4	Piping weight per foot
LENGTH	Long	4	Length of Piping

STRINGS

Indexes:

Index Name	Fields in Index
PrimaryKey	API_WELLNO,TYP_PIPE,BOT
Reference12	API_WELLNO

Fields:

Field Name	Type	Width	Description
API_WELLNO	Text	14	API Well Number
TYP_PIPE	Text	4	Type of String
DIA	Double	8	Diameter
HOLE_SIZE	Double	8	Hole Size
TOP	Long	4	Top
BOT	Long	4	Bottom
DT_SET	Date/Time	8	Date Piping Set
DT_MOD	Date/Time	8	Date Last Modified

tblCriteria

Indexes:

Index Name	Fields in Index
PrimaryKey	User,Cnt

Fields:

Field Name	Type	Width	Description
User	Text	50	User Name
Cnt	Long	4	Counter used to generate a unique key
FName	Text	50	Field Name to select
Compare	Text	12	Comparison operator (e.g. "=",">","<" ....)
Criteria	Text	250	Criteria to apply
And'Or	Text	50	AND or OR condition to combine with previous conditions.

tblRowSource

Indexes:

Index Name	Fields in Index
PrimaryKey	Key

Fields:

Field Name	Type	Width	Description
Key	Text	50	Table name.Field Name
RowSource	Text	255	Row source use in tblCriteria form
ColumnCount	Integer	2	Number of columns in list
fMask	Text	50	Mask for field
fValidation	Text	50	Validation for field
fFormat	Text	50	Format for Field

tblSort

Indexes:

Index Name	Fields in Index
PrimaryKey	User,Cnt

Fields:

Field Name	Type	Width	Description
User	Text	50	User Name
Cnt	Long	4	Counter to generate a unique key
FName	Text	50	Field name to sort
Order	Text	50	Sort Order (Asc or Desc)

tblUsers

Indexes:

Index Name	Fields in Index
PrimaryKey	UserName

Fields:

Field Name	Type	Width	Description
UserName	Text	50	Access login name
Menu	Text	50	Menu Name to use for this user

Tst_Mthd

Indexes:

Index Name	Fields in Index
PrimaryKey	METHCODE

Fields:

Field Name	Type	Width	Description
METHCODE	Text	4	
DESCRIPT	Text	40	

UIC_Perm

Indexes:

Index Name	Fields in Index
DT_APPLIC	DT_APPLIC
DT_DENIED	DT_DENIED
PrimaryKey	UICPERMIT,DT_APPLIC

Fields:

Field Name	Type	Width	Description
UICPERMIT	Text	10	The UIC Permit Number
DT_APPLIC	Date/Time	8	Application Date
ORDER_NO	Double	8	Board Order Number for Permitting Action
DOCNO	Double	8	Docket Number for Permitting Action
CAUSENO	Double	8	Cause Number
INIT_MOD	Yes/No	1	Is this an Initial Permit (YES) or a Permit Modification (NO)
EPA_PERMIT	Text	11	EPA Permit Number
PERMIT_TYP	Text	1	Type of Well Permit
DT_EFFECT	Date/Time	8	Date Permit or Order Effective
DT_ISSUED	Date/Time	8	Date Permit or Order Issued by State
DT_DENIED	Date/Time	8	Date Permit or Order Denied
DTWITHDRAW	Date/Time	8	Date Permit or Order Withdrawn
MOD_CODE	Text	3	Type of Permit or Order Modification (last modification)
MAJ_MIN	Text	3	Major or Minor UIC Permit/Order Modification?
DT_PNOTICE	Date/Time	8	Date Public Notice Requirements Achieved
AFFIDAVIT	Text	1	Has Operator Provided Affidavit for Permit Application?

BOARD_PET	Text	1	Has Operator Petitioned the Board for Permit Approval?
DT_FEE	Date/Time	8	Date Permit Fee been Collected
FEE_AMOUNT	Double	8	Permit Fee Amount Collected
DT_PAPLAN	Date/Time	8	Date Plugging and Abandonment Plan Approved
DT_MOD	Date/Time	8	Date Record Updated
COMMENT	Memo	0	Comments
PERMIT_WRITER	Text	32	Permit Writers Name
DT_APPCOMP	Date/Time	8	Date Permit Application or Modification Complete
MOD_TYPE	Text	4	Permit Modification Type

WELL

Indexes:

Index Name	Fields in Index
Index1	STATE,CNTY
Index2	WH_PM,WH_TWPD,WH_TWPN,WH_RNGD,WH_RNGN,WH_SEC
LEASE_NO	LEASE_NO
OPNO	OPNO
PrimaryKey	API_WELLNO
Reference19	OPNO
UIC_PERMIT	UIC_PERMIT
WH_LEGAL	WH_LEGAL
WL_PERMIT	WL_PERMIT

Fields:

Field Name	Type	Width	Description
API_WELLNO	Text	14	API Well Number
STATE	Byte	1	API State Number
CNTY	Integer	2	API County Number
HOLE	Long	4	API Well Hole Number
SIDETRCK	Byte	1	API Well Sidetrack Number
COMPLETION	Byte	1	API Well Completion Number
OPNO	Double	8	Operator Number

UIC_PERMIT	Text	10	State UIC Permit Number
WELL_TYP	Text	4	Well Type
ORIG_WLTYP	Text	4	Orginial Completion Well Type - Same codes as Well Type
WL_STATUS	Text	2	Well Status
DT_STATUS	Date/Time	8	Status Date (Date well changed to the current status)
MULT_LATRL	Yes/No	1	Multi lateral? Yes/No
WL_PERMIT	Text	11	Well Pemit Number - Number of the well permit granting permission to drill the well. Another data element is used to store the UIC Permit Number.
DT_APPROV	Date/Time	8	Date Well Construction Permit Approved
DT_EXPIRE	Date/Time	8	Date Well Construction Permit Expires
DT_SPUD	Date/Time	8	Spud Date
DT_TD	Date/Time	8	Date TD Reached
DT_COMP	Date/Time	8	Date Completed
DT_COMPRPT	Date/Time	8	Date Completion Report Received
DT_CONFID	Date/Time	8	Date End of Period of Confidential Data - For tight holes, date of the end of the allotted period for confidential data.
DT_PROD	Date/Time	8	Date First Production
DT_INJ	Date/Time	8	Date of First Injection
DT_AUTH	Date/Time	8	Date Authorization to Transport
DT_PLUGPLN	Date/Time	8	Date Plugging Plan Approved
DT_PA	Date/Time	8	Date of Well P&A
WH_SEC	Integer	2	Section - Wellhead
WH_TWPN	Single	4	Township Number - Wellhead
WH_TWPD	Text	1	Township Direction - Wellhead ('N'orth, 'S'outh)
WH_RNGN	Single	4	Range Number - Wellhead
WH_RNGD	Text	1	Range Direction - Wellhead ('E'ast, 'W'est)
WH_PM	Text	3	Principal Meridian - Wellhead
WH_QTR	Text	8	Quarter Section - Wellhead - Location of the well within the section. Spot location will be made from combination of the following codes: NE,NW,SW,SE,N2,S2,E2,W2, and C(Center). Free Format will allow for entries such as NESW,E2NESE,CNE, etc.
WH_LEGAL	Text	18	Legal Description - Wellhead (PM,Rngd,Rng,Twpd,Twp,Sec)
SEC_ADDT	Text	1	Section Descriptor, Additional - In some areas of the Public Land Grid, an additional data element is required to uniquely describe a specific section. This data element can be used for that purpose when

			required.
WH_FTNS	Integer	2	Feet from North or South Section Line - Wellhead
WH_NS	Text	1	North or South Line - Wellhead ('N'orth, 'S'outh)
WH_FTEW	Integer	2	Feet from East or West Section Line - Wellhead
WH_EW	Text	1	East or West Line - Wellhead ('E'ast, 'W'est')
WH_LAT	Double	8	Latitude - Wellhead (stored as a decimal)
WH_LONG	Double	8	Longitude - Wellhead (stored as a decimal)
SOURCE_LOC	Text	1	Source of Location
WH_STPLZONE	Text	1	State Plane Zone - Wellhead
WH_X	Long	4	State Plane Coordinate X
WH_Y	Long	4	State Plance Coordinate Y
SLANT	Text	1	Well Configuaration
WL_COMPL	Text	4	Well Completion
DIRSRV_RUN	Yes/No	1	Directional Survey Run - Indicates whether or not a directional survey was run.
DIRSRV_REC	Yes/No	1	Directional Survey Received - Indicates whether or not a directional survey was received by the State regulatory agency.
BH_SEC	Integer	2	Section - Bottom Hole
BH_TWPN	Single	4	Township Number - Bottom Hole
BH_TWPD	Text	1	Township Direction - Bottom Hole ('N'orth, 'S'outh)
BH_RNGN	Single	4	Range Number - Bottom Hole
BH_RNGD	Text	1	Range Direction - Bottom Hole ('E'ast, 'W'est)
BH_PM	Text	3	Principal Meridian - Bottom Hole
BH_FTNS	Integer	2	Feet from North or South Section Line - Bottom Hole
BH_NS	Text	1	North or South of Line - Bottom Hole ('N'orth, 'S'outh)
BH_FTEW	Integer	2	Feet from East or West Section Line - Bottom Hole
BH_EW	Text	1	East or West of Line - Bottom Hole ('E'ast, 'W'est)
BH_LAT	Double	8	Latitude of Bottom Hole Location (stored as a decimal)
BH_LONG	Double	8	Longitude of Bottom Hole Location (stored as a decimal)
BH_STPLZONE	Text	1	State Plane Zone - Bottom Hole
BH_BEARING	Text	12	Bearing - Bottom Hole
BH_DISTANCE	Long	4	Distance from Bottom Hole Location
BH_X	Long	4	State Plane Coordinate X

BH_Y	Long	4	State Plance Coordinate Y
ORIG_OPNO	Double	8	Original Operator Number
DRNO	Double	8	Drilling Contractor Number
WELL_NM	Text	40	Well Name - Consists of the Lease/Unit Name plus the Well Number.
LEASE_NO	Long	4	State Assigned Lease Number for Production Accounting
ST_DIST	Text	2	State OGCC Districts
BASIN	Integer	2	AAPG Basin Code
FIELD_NO	Long	4	Oil Field Number
OBJ_FMTN	Text	8	Objective Formation Code
CMNGL_DWN	Yes/No	1	Down Hole Commingled
CMNGL_SURF	Yes/No	1	Production from Multiple Wells Commingled at Surface
DT_CMNGLAP	Date/Time	8	Date Surface Commingling Approved
SAMP_REQ	Yes/No	1	Samples Required?
CATHOD	Text	4	Cathodic Protection
PIT	Yes/No	1	Open Pit - Indicates the presence of an open pit at the well site.
WH_PROAREA	Yes/No	1	Well Head Protection Area
SURF_OWNER	Text	1	Surface Ownership
MI_FEDERAL	Yes/No	1	Federal Mineral Interest - Indicates presence of Federal mineral interest in the well.
MI_INDIAN	Yes/No	1	Indian Mineral Interest - Indicates presence of Indian mineral interest in the well.
MI_STATE	Yes/No	1	State Mineral Interest - Indicates presence of State mineral interest in well.
FED_LEASE	Text	13	Federal Lease Number
BIA_LEASE	Text	13	Bureau of Indian Affairs Lease Number
ST_LEASE	Text	10	State Lease Number - For leasing of State owned lands.
ELEV_GR	Long	4	Ground Elevation - Indicates elevationin feet above the National Geodetic Vertical Datum (NGVD).
ELEV_KB	Long	4	Kelly Bushing Elevation
ELEV_DF	Long	4	Derrick Floor Elevation
REF_CONST	Text	1	Reference for Well Construction .
REF_TOPS	Text	1	Reference for Formation Tops - Reference point used for determining depths.
REF_LOGS	Text	1	Reference for Logs, Samples, and Cores - Reference point used for determining depths.
MD	Long	4	Measured Depth
TVD	Long	4	True Vertical Depth
PB_MD	Long	4	Plug Back Measured Depth

PB_TVD	Long	4	Plug Back True Vertical Depth
KO_TVD	Long	4	True Vertical Depth Kickoff
EPA_PERMIT	Text	11	EPA Permit Number - The format for EPA UIC Permits is as follows: "MS-01-2R-0001". The first 2 letters are the sate identifier, a 3 digit count code, a 2 character well type code, and a 4 digit well identifier.
RULE_AUTH	Yes/No	1	Rule Authoized?
CLASS	Text	2	Class of Injection Well Indicator
NEW_EXIST	Text	1	New or Existing Well ('N'ew, 'E'xisting)
COMMERCIAL	Yes/No	1	Commercial Disposal Well Indicator
DT_COMPRVW	Date/Time	8	Date of Last Compliance Review
CMPRVWRSLT	Text	1	Compliance Review Result ('A'dequate, 'D'efficient)
DT_WTRANAL	Date/Time	8	Date Water Analysis
MAXALOWPR	Integer	2	Maximum Allowable Injection Pressure
MAXALOWRA	Long	4	Maximum Allowable Rate of Injection in Barrels per Day
IMIT_RTP	Integer	2	IMIT Required Test Pressure
DT_APMAPP	Date/Time	8	Date Annulus Pressure Monitoring Approved in Lieu of Pressure Testing or other Standard IMI Testing methods
MINREQAP	Integer	2	Minimum Required Annulus Pressure - This field will maintain the minimum required annulus pressure that an operator is required to maintain on an injection well's annulus (if required) for annulus monitoring.
ANN_FLUID	Text	4	Type of Fluid in Annulus
SG_ANNULUS	Single	4	Specific Gravity of Annulus Fluid
INJ_FLUID	Text	4	Type of Injection Fluid
SG_INJ	Single	4	Specific Gravity of Injectate
PH_INJ	Single	4	PH of Injectate
CORR_INJ	Text	8	Corrosivity of Injectate
DU_ACRES	Integer	2	Acres in Drilling Unit
DU_DESC	Text	8	Description Drilling Unit - Short description of the configuration unit of the drilling unit for the well (E2NE, SESW, N2, etc.).
CAT	Text	1	Category ('W'ildcat, 'D'evelopment, 'O'ther)
ORIG_CAT	Text	1	Original Completion Category - Same codes as Category
PROD_CLASS	Text	1	Production Classification ('O'il Well, 'G'as Well) - Code indicating whether well ever produced oil or gas in commercial quantities.
PROD_MTHD	Text	1	Production Method
DISP_MTHD	Text	3	Method of Water Disposal

DISP_WELL	Text	14	Disposal Well API Number - The API Number of the disposal well used to dispose of brine produced by the well.
DISP_FACIL	Text	14	Water Disposal Facilty Number - The UIC Permit number of the commercial facility used to dispose of brine produced by the well.
H2S_GAS	Yes/No	1	Sour H2S Gas Present - Used to prepare list of sour gas wells.
DT_OPNOT	Date/Time	8	Date Operator Notified of IMIT Requirement
FRQ_EMIT	Byte	1	Frequency of Eternal MI Demonstraction - Required frequency of EMIT in months.
NEXT_EMIT	Date/Time	8	Date Next EMIT Scheduled - This data field will maintain the specific required completion date for the next EMI demonstration. However, it should be noted that in some states, a single EMI demonstration is acceptable for the life of the well.
FRQ_IMIT	Byte	1	Frequency of Internal MI Demonstraction - Required frequency of IMIT in months.
NEXT_IMIT	Date/Time	8	Date Next IMIT Due - Calculated due date of the next IMI demonstration. If IMI not completed by this date a violation could be signified if the well continues to operate or violates other state regulatory requirements concerning IMI.
FRQ_MONRPT	Byte	1	Frequency for UIC Monitoring Reports - Required reporting frequency for annulus monitoring data in MONTHS at a specific well as related to the IMI demonstration.
FRQ_MONREC	Text	1	Recording Frequency of Annulus Monitoring IMI Demonstraction
FRQ_GOR	Byte	1	Frequency of GOR or Production Tests - In MONTHS
FRQ_IDLWL	Byte	1	Frequency of Idle Well Reports - In MONTHS
HYDRO_PATH	Text	1	Hydro Path? - Does the well penetrate pressured formations having sufficient reservoir or aquifer pressures to initiate and sustain flow into the lowermost USDW?
LVL_PROTEC	Byte	1	Levels of Protection
DT_LVLPROT	Date/Time	8	Date Levels of Protection determined
SALES_CD	Integer	2	Sales Code
ACTG_GRP	Integer	2	Accounting Group
COMMENT	Memo	0	Comments
USER	Text	8	User ID
DT_MOD	Date/Time	8	Date Record Last Modified

WELLHISTRY

Indexes:

Index Name	Fields in Index
PrimaryKey	API_WELLNO,TYP_WORK,DT_EFFECT
Reference10	API_WELLNO

Fields:

Field Name	Type	Width	Description
API_WELLNO	Text	14	API Well Number
TYP_FORM	Text	5	Type of Form or Verbal Notice Received
TYP_WORK	Text	5	Type of Work or Event
DT_EFFECT	Date/Time	8	Date Effective
FAIL_TYP	Text	3	Type of Mechanical Integrity Failure
FAIL_CAUSE	Text	7	Cause of MI Failure
SBSQNT_RPT	Text	5	Type of Subsequent Report Required
DT_RPTREQD	Date/Time	8	Date Subsequent Report required
DT_RPTRCVD	Date/Time	8	Date Subsequent Report Received
COMMENT	Memo	0	Comments
DT_MOD	Date/Time	8	Date last modified

WELLPOOL

Indexes:

Index Name	Fields in Index
PrimaryKey	API_WELLNO,POOLNO
Reference20	API_WELLNO
Reference27	POOLNO

Fields:

Field Name	Type	Width	Description
API_WELLNO	Text	14	API Well Number
POOLNO	Long	4	Pool Number - Pool from which production

			occurs or into which fluids are injected.

ZONEFMTN

Indexes:

Index Name	Fields in Index
PrimaryKey	ZONE_KEY,FMTN_CODE
Reference18	ZONE_KEY

Fields:

Field Name	Type	Width	Description
ZONE_KEY	Long	4	ZONE_KEY is the primary key to the ZONES Table
FMTN_CODE	Text	8	Formation Code

ZONES

Indexes:

Index Name	Fields in Index
Index1	API_WELLNO,TYP_ZONE
Index2	UIC_PERMIT,TYP_ZONE
PrimaryKey	ZONE_KEY

Fields:

Field Name	Type	Width	Description
ZONE_KEY	Long	4	Counter field needed for Primary Key
API_WELLNO	Text	14	API Well Number
UIC_PERMIT	Text	10	UIC Permit Number
TYP_ZONE	Text	1	Type of Zone
TOP	Long	4	Top of Zone
BOT	Long	4	Bottom of Zone

LITHO	Text	30	Lithology
TDS	Long	4	Total Dissolved Solids
MTHD_USDW	Text	4	Method by which USDW Depths and TDS was determined
EXEMPT	Yes/No	1	Exempted Aquifer
PERM	Double	8	Permeability
POROS	Double	8	Porosity
FRACP	Long	4	Fracture Pressure
FRAC_MTHD	Text	1	Source of Fracture Pressure
PRESSURE	Long	4	Pressure
DT_MOD	Date/Time	8	Date Last Modified

Screen Captures and Descriptions

RBDMS, ver. 4.0

Description of RBDMS Screens

1. **WELCOME SCREEN**: This screen simply presents the purpose of the RBDMS project, funding sources, and developers of the system: CH2M HILL, Inc. (Primary Consultant), Digital Design Group, Inc., and Virtual Engineering Solutions.
2. **WELL SELECTION CRITERIA FORM**: Upon initiating the ***RBDMS*** program, users are brought to this form for navigation to anywhere in the ***RBDMS*** or to perform specific functions (e.g., selecting a record for viewing, filtering of data in the system, attaching new or different RBDMS data tables, developing a new user query, etc.).
3. **FILE MENU**: This figure presents the customized ***RBDMS*** "FILE MENU". From this menu, users can change from EDIT, ADD, or INQUIRY mode from anywhere in the system.
4. **FORMS MENU**: This figure presents the customized ***RBDMS*** "FORMS MENU" which enables users to navigate to any form in the system.
5. **FORMS MENU Continued.**
6. **FORMS MENU Continued.**
7. **REPORTS MENU**: This figure presents the customized ***RBDMS*** "REPORTS MENU" which enables users to choose any standard report included in ***RBDMS***.
8. **REPORTS MENU Continued.**
9. **REPORTS MENU Continued.**
10. **REPORTS MENU Continued.**
11. **REPORTS MENU Continued.**
12. **HELP MENU**: This figure presents the customized RBDMS "HELP MENU" which provides users access to the RBDMS On-Line Help System. The ***RBDMS*** On-Line Help system provides detailed information on many of the intricacies of ***RBDMS***.
13. **AREA OF REVIEW (AOR) INFORMATION FORM**: This form allows both data entry and inquiry for data related to AOR studies. Data can be entered for an AOR study performed on one well or a group of wells (i.e., for an area permit). Located at the bottom of this form are function and navigation buttons. The <NEW> new button allows users to enter a new data record. The <PRINT FORM> button simply prints the form being viewed. The <SEARCH> button allows users to navigate to another record stored in the AOR Table. By choosing the <Save/Exit> button, the AOR form will be closed and users will be forwarded to the WELL SELECTION CRITERIA form. By choosing the <WELL FILTER> button, users navigate to the WELL SELECTION CRITERIA form without closing the AOR form. This allows the form to be opened more quickly later. The <Cancel> button simply cancels whatever entries have been put into the current record.
14. **AOR SELECTION AND SORT CRITERIA**: This form allows users to select a specific record or group of records to view or edit and also to sort them by specific criteria.
15. **DETERMINATION OF WELLS IN AOR STUDY AREA**: This is an ***RBDMS*** "Functional Form" that allows users to select a specific well or location and then have ***RBDMS*** determine all the wells within a specific radius. The form also allows users to print out environmental risk analysis reports for the wells or to activate the WELLBORE sketching program for any of the wells in the list.

16. **WELL SELECTION AND SORT CRITERIA FORM (for form described in 15 above)**: This form allows users to select the well or group of wells to evaluate in regards to an AOR study. This form is accessed by selecting the filter button to the right of the API Number in from 15.

17. **ENVIRONMENTAL RISK PROBABILITY ANALYSIS FORM**: This is an *RBDMS* "Functional Form" that allows users to pick groups of wells to perform analysis for and quickly view the results on the form.

18. **LEVELS OF PROTECTION ANALYSIS FORM**: This is an *RBDMS* "Functional Form" that allows users to choose an individual well for a levels of protection analysis.

19. **COMPANY FORM**: This form displays Company name and address information as well as other related information.

20. **COMPANY FORM (Continued)**: This figure presents the "Pop-up" that enables users to select a specific record (or company record) to view.

21. **COMPLIANCE INFORMATION FORM**: This form is used for data entry and inquiry for information pertaining to violations or noncompliance. Two sub-forms are imbedded (Violation Types and Types of Corrective Actions) to allow users to added as many of these types of data as desired.

22. **COMPLIANCE INFORMATION FORM (Continued)**: Because the COMPLIANCE FORM contains a significant amount of information, there was not adequate room on the screen for header information. To account for this, a <SUMMARY> button was placed in the COMPLIANCE FORM under "General Compliance Information." By choosing this button, header information can be accessed to see whether the related compliance information pertains to a well or to a location (e.g., pipeline leak).

23. **COMPLIANCE INFORMATION FORM (Continued)**: This figure presents the Compliance Selection and Sort Criteria Form which facilitates choosing other records to view.

24. **EXTERNAL MIT DATA FORM**: This form allows for data entry and inquiry of external mechanical integrity testing data.

25. **EXTERNAL MIT DATA FORM (Continued)**: This figure shows an example of how *RBDMS* utilizes "COMBO BOXES" which provide choices for many data fields and helps to minimize errors.

26. **EXTERNAL MIT DATA FORM (Continued)**: As above, but another combo box is shown.

27. **EXTERNAL MIT DATA FORM (Continued)**: As above, but a sub-form is shown which allows multiple types of tests that may have been used for a testing event to be tracked.

28. **INSPECTION SELECTION FORM**: This form allows the user access to the five inspection forms.

29. **WELL INSPECTIONS FORM**: This form allows the user to input data and dates from well inspections and comments from the inspector.

30. **RIG INSPECTIONS FORM**: This form allows the user to input data and dates from rig inspections and comments from the inspector.

31. **INCIDENT INSPECTIONS FORM**: This form allows the user to input data and dates for the type of incident and comments form the inspector.

32. **METER INSPECTIONS FORM**: This form allows the user to input data and dates from meter inspections and comments from the inspector.

33. **INSPECTION FAIL CODES AND DESCRIPTIONS FORM**: This form allows the user to configure the database fail codes to their specific uses and descriptions. This allows each state to enter their own fail codes.

34. **INTERNAL MIT DATA FORM**: This form allows for data entry and inquiry of internal mechanical integrity testing data.

35. **INTERNAL MIT DATA FORM (Continued)**: This figure shows a Internal MIT record for a well passing the test. Since the well passed the MIT, information pertaining to failed tests becomes hidden.

36. **INTERNAL MIT DATA FORM (Continued)**: This figure shows a snapshot the dropdown combo box used for selecting the type of internal mechanical integrity test used for any particular test.

37. **INTERNAL MIT DATA FORM (Continued)**: As above, but the drop down combo box for type of Internal MIT failure is shown.

38. **INTERNAL MIT DATA FORM (Continued)**: This figure shows a snapshot of the IMIT SELECTION and SORT CRITERIA form used to select a specific record or group of record for viewing or editing.

39. **UIC MONITORING DATA FORM**: This form allows for data entry and inquiry of UIC Monitoring data submitted by operators. The form allows viewing of 12 consecutive months of data. At the top of the form are identification and information headers which present data applicable to the monitoring data being viewed or entered.

40. **UIC MONITORING DATA FORM (Continued)**: A combo box is used on the UIC MONITORING FORM to select which particular year is desired for viewing.

41. **UIC MONITORING DATA FORM (Continued)**: This figure shows a snapshot of the UIC MONITORING Selection and Sort Criteria Form used to select a specific record or group of records for viewing or editing.

42. **UIC MONITORING DATA FORM (Continued)**: In the event a violation is identified upon data entry or inquiry, the <VIOLATION> button can be used to create a new record in the COMPLIANCE table automatically. If chosen, the database opens the Compliance form for data entry.

43. **UIC PERMITS AND ORDERS FORM**: This form allows for data entry and inquiry of Class II injection well permit or board order data (either original permits/orders or modifications). The UIC PERMITS Module was designed to facilitate entry of either individual well permits or multi-well permits.

44. **UIC PERMITS AND ORDERS FORM (Continued)**: This figure shows a snapshot of a combo box used to select the reason for modifying a particular permit or order (for permit/order modifications only).

45. **UIC PERMITS AND ORDERS FORM (Continued)**: This figure shows a snapshot of the UIC Permit Selection and Sort Criteria form used to select a specific record or group of records for viewing or editing.

46. **WELL CONSTRUCTION FORM (PAGE 1)**: Page 1 of the WELL CONSTRUCTION Form allows for data entry and/or inquiry of basic data for either a producing well or well used for injection. Due to the application of this particular form, a different set of buttons can be seen at the

bottom of the form. The buttons on the left side of the form are for navigating between the various pages of the WELL CONSTRUCTION Form. The buttons on the bottom right side of the form allow for entering a new record <NEW>, saving a record <SAVE>, Finding a particular well to view or edit <FIND>, deleting a record <DELETE>, or for exiting the form <EXIT>. It is important to note that data for the operator, driller, field, object formation, pool(s), as well as other information are accessed through dropdown combo boxes which provide a specified number of available choices to avoid confusion and reduce errors.

47. **WELL CONSTRUCTION FORM (PAGE 1 - Continued)**: This figure shows a snapshot of additional location data accessed by touching the button titled <Lat/Long and BH Loctn>. Therefore, for both wellhead and bottom hole locations, RBDMS allows for users to specify latitude/longitude, Section-Township-Range, and/or state plane coordinates.

48. **WELL CONSTRUCTION FORM (PAGE 1 - Continued)**: This figure shows a snapshot of the pop-up form activated by touching the <FIND> button. This form provides several choices users can take advantage of for selecting a specific desired record or group of records for viewing or editing.

49. **WELL CONSTRUCTION FORM (PAGE 2)**: Page 2 of the WELL CONSTRUCTION FORM provides access to additional information, including formation tops for an individual well record.

50. **WELL CONSTRUCTION FORM (PAGE 3)**: Page 3 of the WELL CONSTRUCTION FORM provides access to information related to injection wells, including permit numbers, maximum allowables, mechanical integrity testing frequencies, and more.

51. **WELL CONSTRUCTION FORM (PAGE 4)**: Page 4 of the WELL CONSTRUCTION FORM provides access to information strings, cement, completion type/perforations, zones, and formations. This is the information RBDMS uses to construct wellbore diagrams using WELLBORE.

52. **WELL CONSTRUCTION FORM (PAGE 5)**: Page 5 of the WELL CONSTRUCTION FORM provides access to information related to logs, cores, and/or samples collected and reported for an individual well record.

53. **WELL CONSTRUCTION FORM (PAGE 6)**: Page 6 of the WELL CONSTRUCTION FORM provides access to production test information.

54. **WELL HISTORY DATA FORM**: This form allows for data entry or inquiry of well history data for a particular well record.

55. **BONDS FORM**: This form allows for data entry and/or inquiry of Bonding data and information.

56. **FIELDS FORM**: This form allows for data entry and/or inquiry of fields information data.

57. **GEOLOGIC FORMATIONS FORM**: This form allows for data entry and/or inquiry of geologic formations.

58. **POOL/RESERVOIR MAINTENANCE FORM**: This form allows for data entry and/or inquiry of pool/reservoir information.

59. **RIGS FORM**: This form allows for data entry and/or inquiry of rigs operating in the state. This form was developed specifically for the Alaska Oil & Gas Conservation Commission and may not be used by many states.

60. **COUNTIES FORM**: This form allows for viewing or printing a report on the counties in the state.

61. **UTILITY FORM**: This form is for attaching a database table in a new location: This utility form was developed to allow users to specify the location of a different RBDMSDTA.MDB database.

62. **RBDMS USER QUERIES UTILITY FORM**: This form enables users to make unique and personalized queries to be used in generating reports, etc. for various tasks that may be required. This utility form was developed so that standard queries maintained in ***RBDMS*** would not accidentally be changed and to allow flexibility in the database.

63. **RBDMS DATABASE WINDOW**: This figure shows a snapshot of the ***RBDMS*** database window for the RBDMS.MDB file.

64. **RBDMSDTA DATABASE WINDOW**: This figure shows a snapshot of the ***RBDMSDTA*** database window for the RBDMSDTA.MDB file.

65. **RBDMS TABLE MAINTENANCE TOOL UTILITY**: This figure shows a snapshot of a utility developed to import data from other tables (used for updating or data conversion), to calculate the size of individual tables, or to create a dictionary list of the ***RBDMS***.

66. **IDLE WELL REPORTS**: This figure shows the snapshot of a form in which idle well reports are stored. Data entry fields are available for dates of the report and future actions upon the well. Also present are data entry fields for the fluid levels and pressures in the well.

Welcome to RBDMS !

RBDMS

RBDMS is a Risk Based Data Management System specifically designed and developed for use by State Regulatory Agencies responsible for implemening the Class II Underground Injection Control Program as well as the Oil and Gas Production Program.

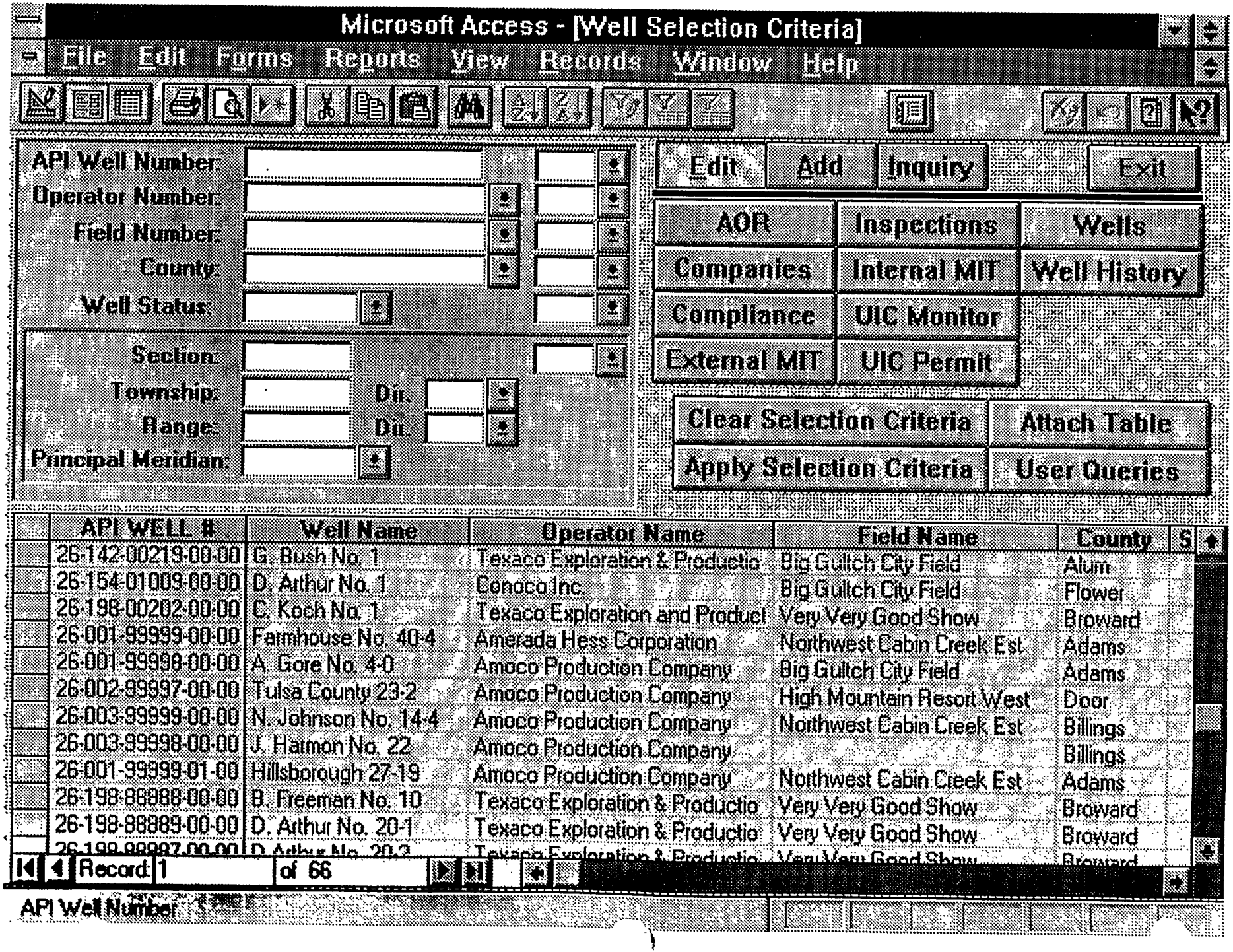
GWPC/UIPRF...
"Dedicated to Protecting the Nation's Groundwater"

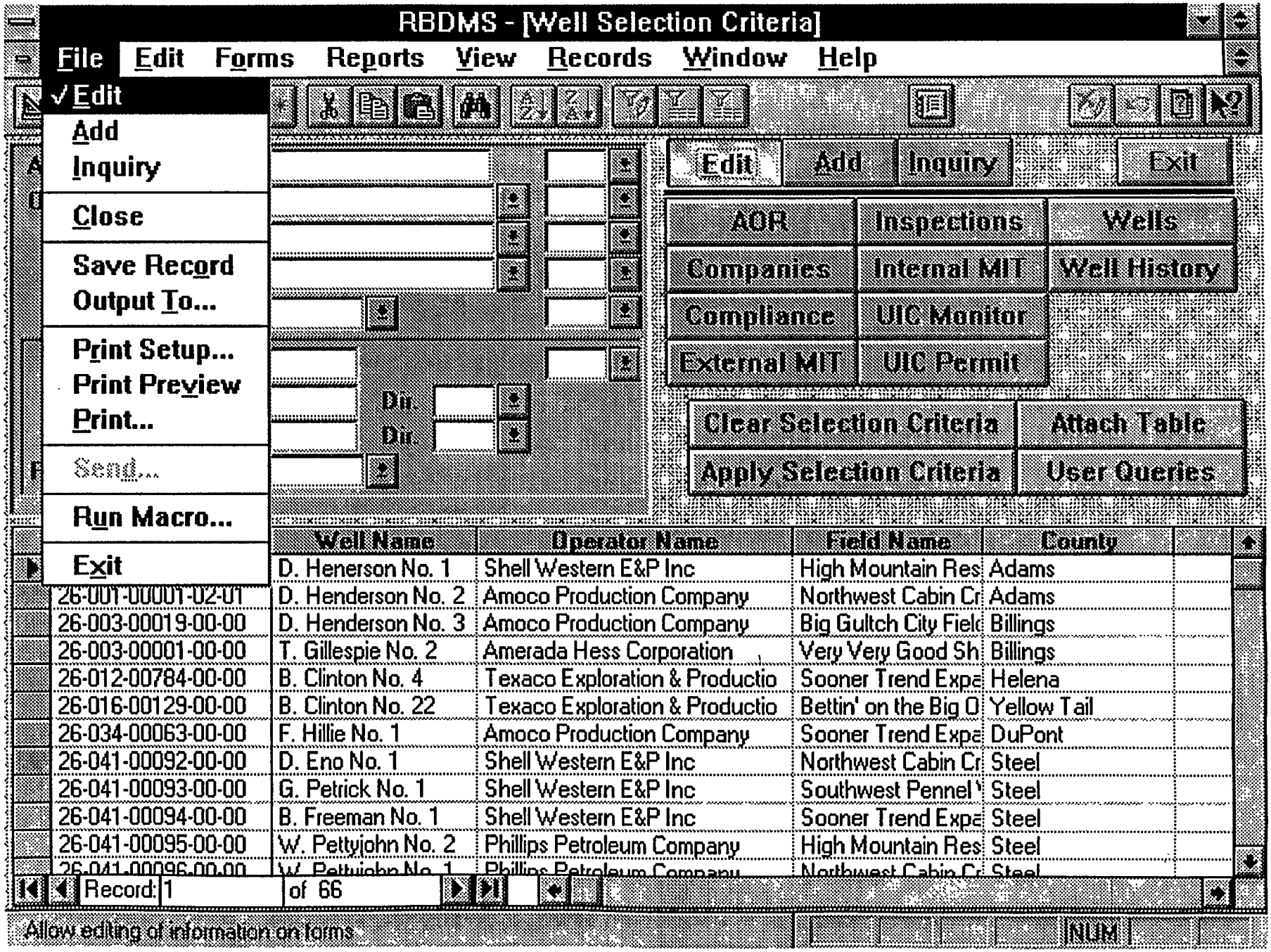
Version 4.0

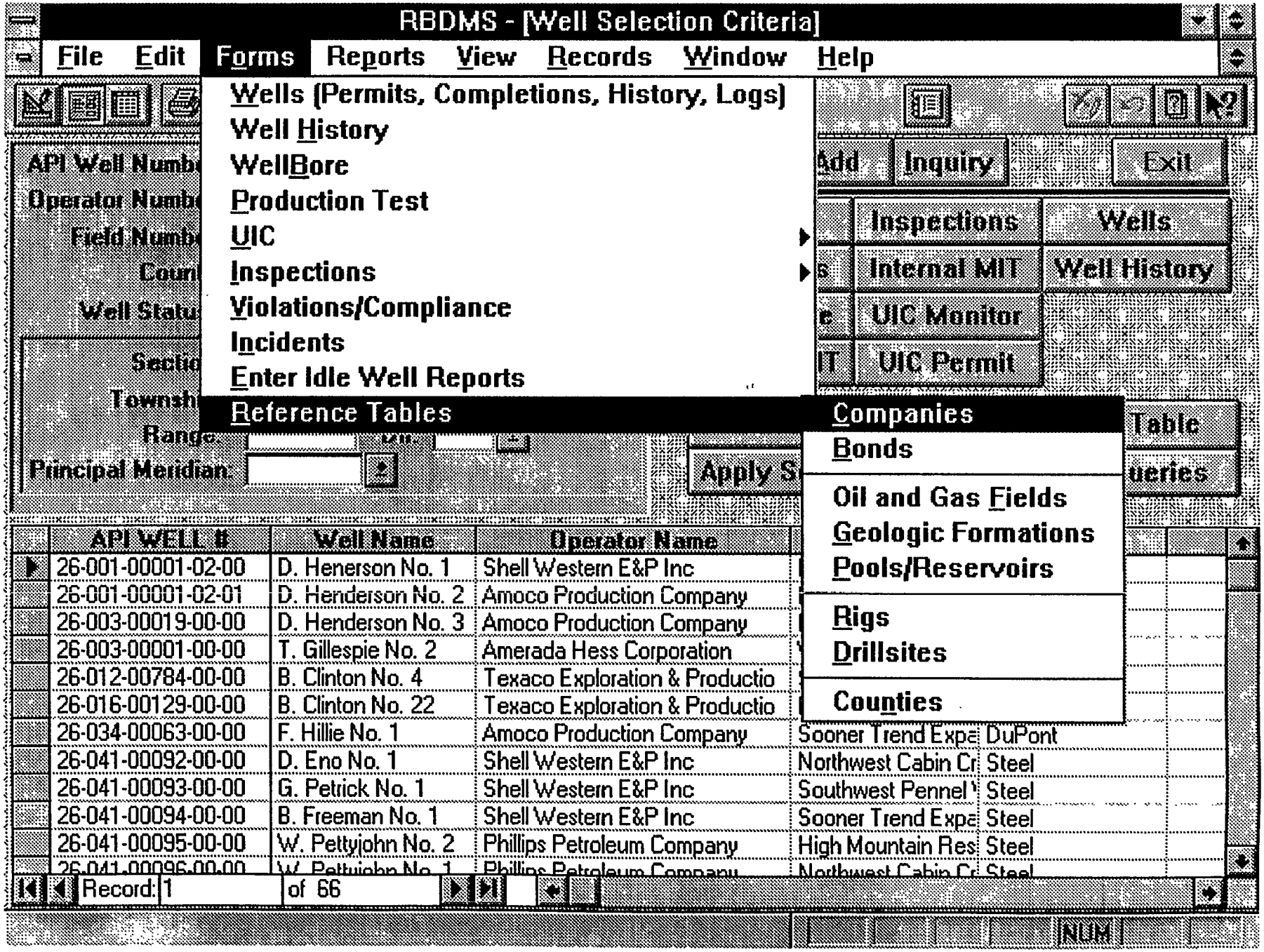
RBDMS was funded through a series of grants provided by the United States Department of Energy, Office of Fossil Energy, Metairie Site Office. Initial inventory and assessments, system design and specifications, and system development were administered by the Underground Injection Practices Research Foundation (UIPRF). The UIPRF is the research branch of the Ground Water Protection Council (GWPC).

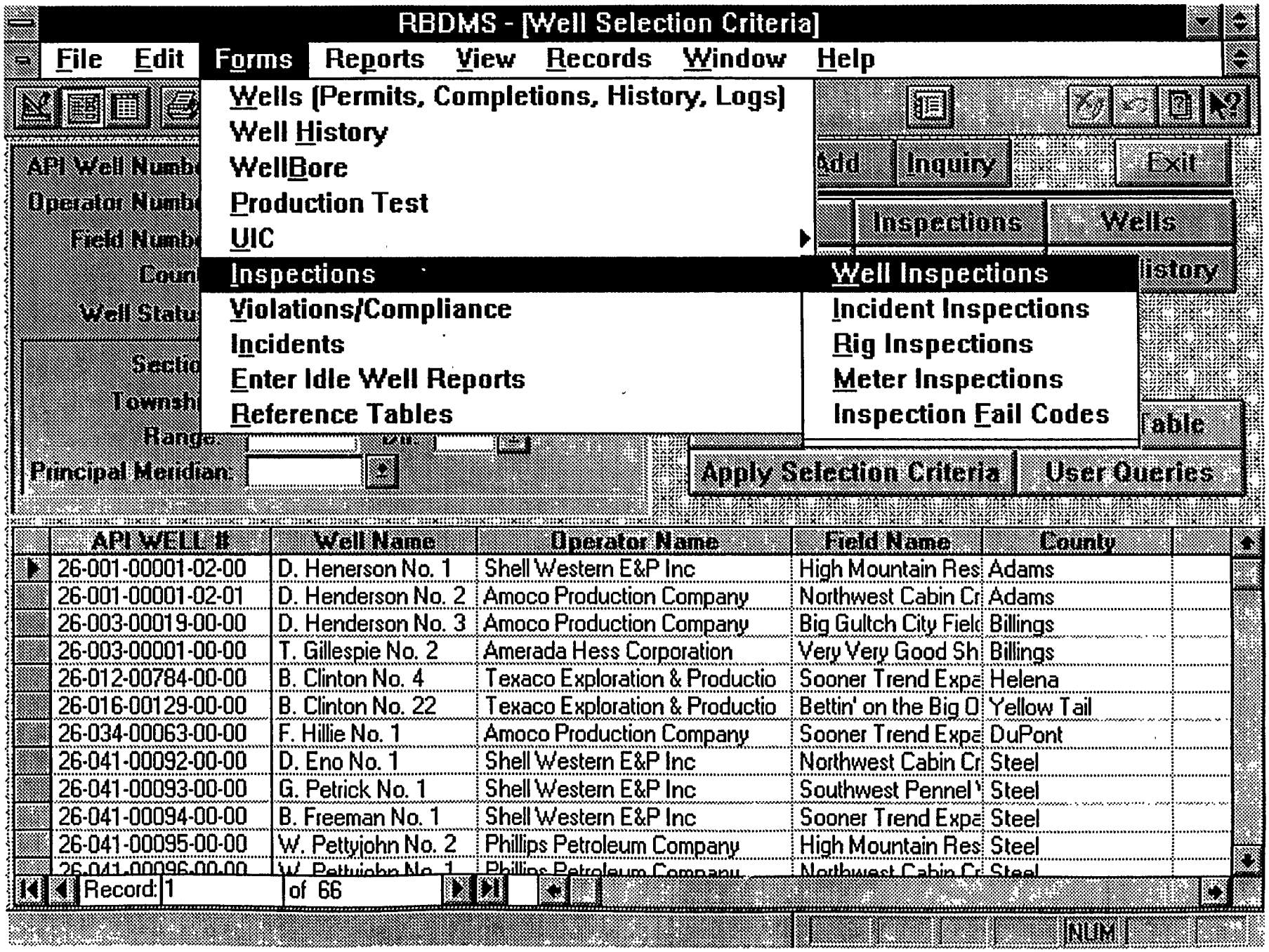
Continue

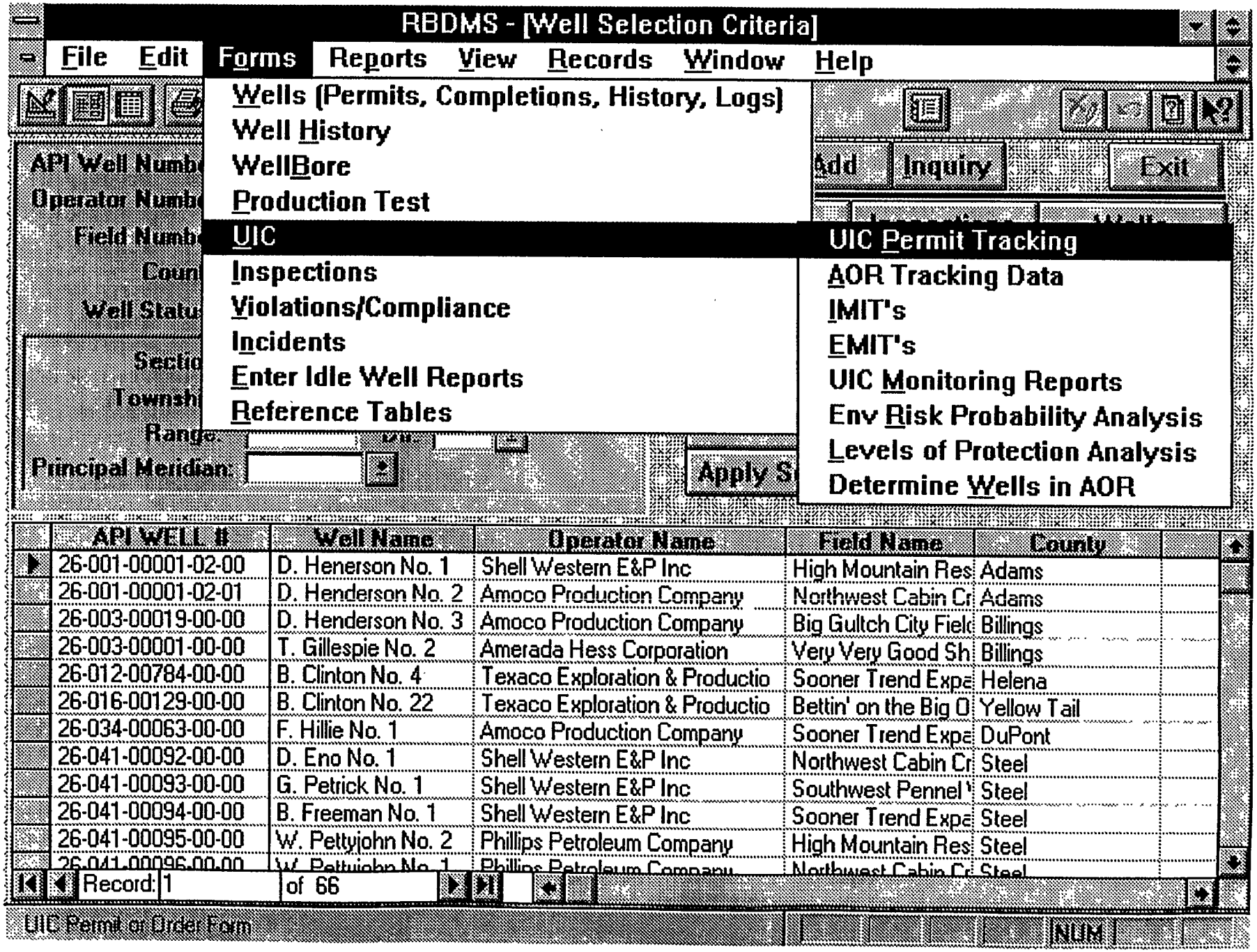
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Digital Design Group, Inc.
Virtual Engineering Solutions, Inc.

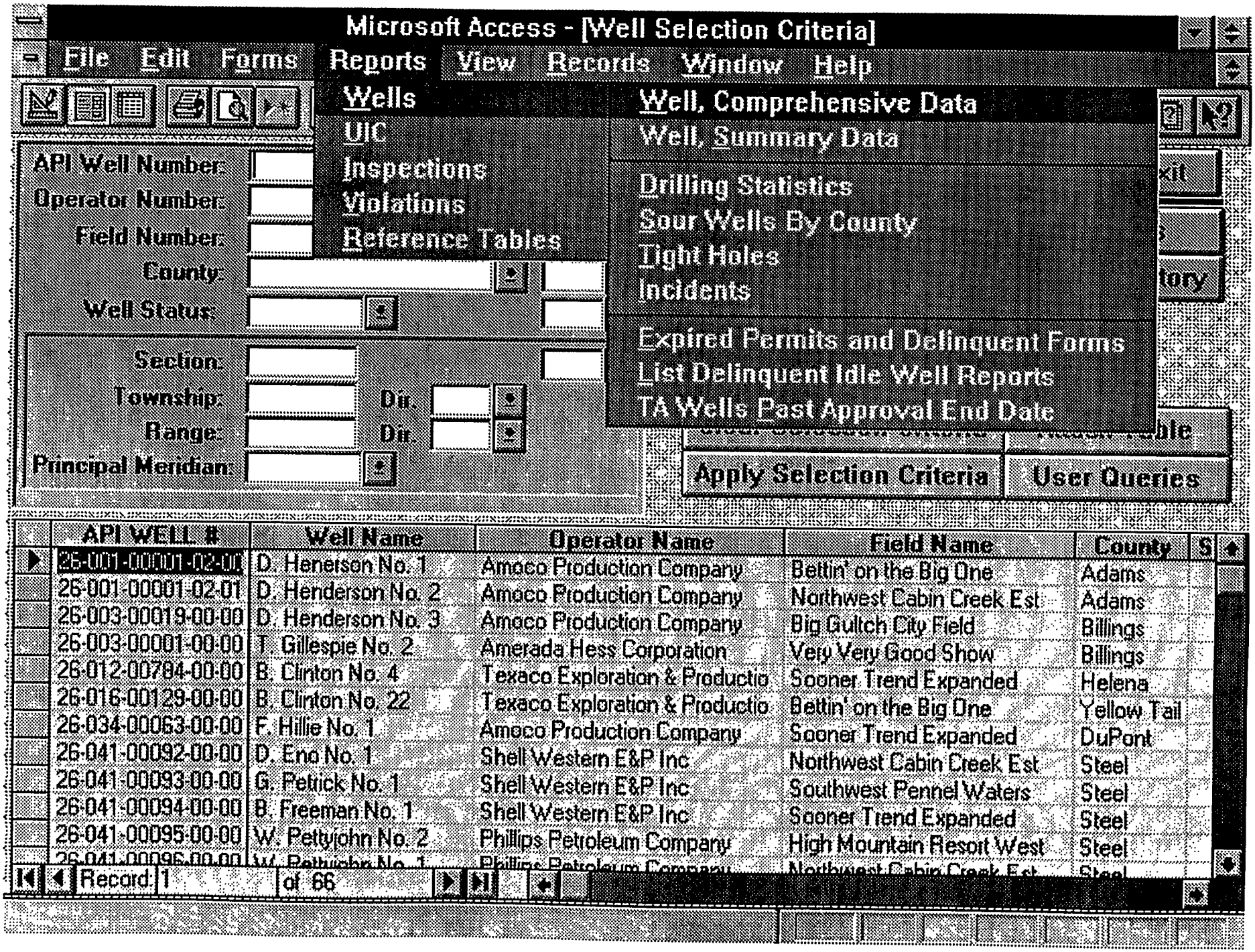

Microsoft Access - [Well Selection Criteria]
File Edit Forms Reports View Records Window Help
API Well Number:
Operator Number:
Field Number:
County:
Well Status:
Section:
Township:
Dir.
Range:
Dir.
Principal Meridian:
Edit
Add
Inquiry
Exit
AOR
Inspections
Wells
Companies
Internal MIT
Well History
Compliance
UIC Monitor
External MIT
UIC Permit
Clear Selection Criteria
Attach Table
Apply Selection Criteria
User Queries
API WELL #
Well Name
Operator Name
Field Name
County
26-142-00219-00-00 G. Bush No. 1 Texaco Exploration & Productio Big Gulch City Field Alum
26-154-01009-00-00 D. Arthur No. 1 Conoco Inc. Big Gulch City Field Flower
26-198-00202-00-00 C. Koch No. 1 Texaco Exploration and Product Very Very Good Show Broward
26-001-99999-00-00 Farmhouse No. 40-4 Amerada Hess Corporation Northwest Cabin Creek Est Adams
26-001-99998-00-00 A. Gore No. 4-0 Amoco Production Company Big Gulch City Field Adams
26-002-99997-00-00 Tulsa County 23-2 Amoco Production Company High Mountain Resort West Door
26-003-99999-00-00 N. Johnson No. 14-4 Amoco Production Company Northwest Cabin Creek Est Billings
26-003-99998-00-00 J. Hatmon No. 22 Amoco Production Company Billings
26-001-99999-01-00 Hillsborough 27-19 Amoco Production Company Northwest Cabin Creek Est Adams
26-198-88886-00-00 B. Freeman No. 10 Texaco Exploration & Productio Very Very Good Show Broward
26-198-88889-00-00 D. Arthur No. 20-1 Texaco Exploration & Productio Very Very Good Show Broward
Record: 1 of 66
API Well Number:

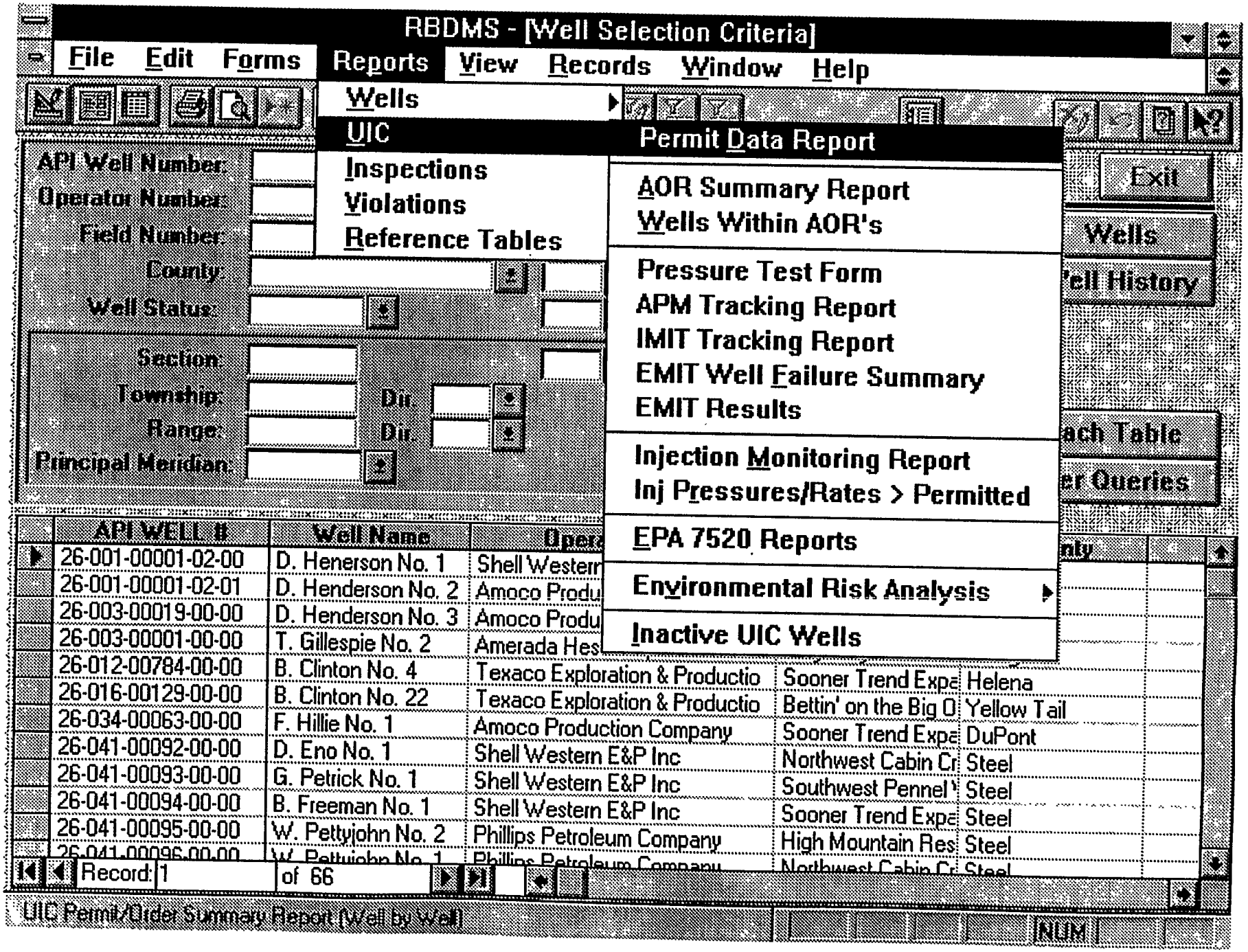

RBDMS - [Well Selection Criteria]
File Edit Forms Reports View Records Window Help
✓Edit
Add
Inquiry
Close
Save Record
Output To...
Print Setup...
Print Preview
Print...
Send...
Run Macro...
Exit
Edit
Add
Inquiry
Exit
AOR
Inspections
Wells
Companies
Internal MIT
Well History
Compliance
UIC Monitor
External MIT
UIC Permit
Clear Selection Criteria
Attach Table
Apply Selection Criteria
User Queries
Dir.
Dir.
Well Name
Operator Name
Field Name
County
D. Henerson No. 1 Shell Western E&P Inc High Mountain Res Adams
26-001-00001-02-01 D. Henderson No. 2 Amoco Production Company Northwest Cabin Cr Adams
26-003-00019-00-00 D. Henderson No. 3 Amoco Production Company Big Gultch City Fiel Billings
26-003-00001-00-00 T. Gillespie No. 2 Amerada Hess Corporation Very Very Good Sh Billings
26-012-00784-00-00 B. Clinton No. 4 Texaco Exploration & Productio Sooner Trend Expa Helena
26-016-00129-00-00 B. Clinton No. 22 Texaco Exploration & Productio Bettin' on the Big O Yellow Tail
26-034-00063-00-00 F. Hillie No. 1 Amoco Production Company Sooner Trend Expa DuPont
26-041-00092-00-00 D. Eno No. 1 Shell Western E&P Inc Northwest Cabin Cr Steel
26-041-00093-00-00 G. Petrick No. 1 Shell Western E&P Inc Southwest Pennel Steel
26-041-00094-00-00 B. Freeman No. 1 Shell Western E&P Inc Sooner Trend Expa Steel
26-041-00095-00-00 W. Pettyjohn No. 2 Phillips Petroleum Company High Mountain Res Steel
Record: 1 of 66
Allow editing of information on forms
NUM

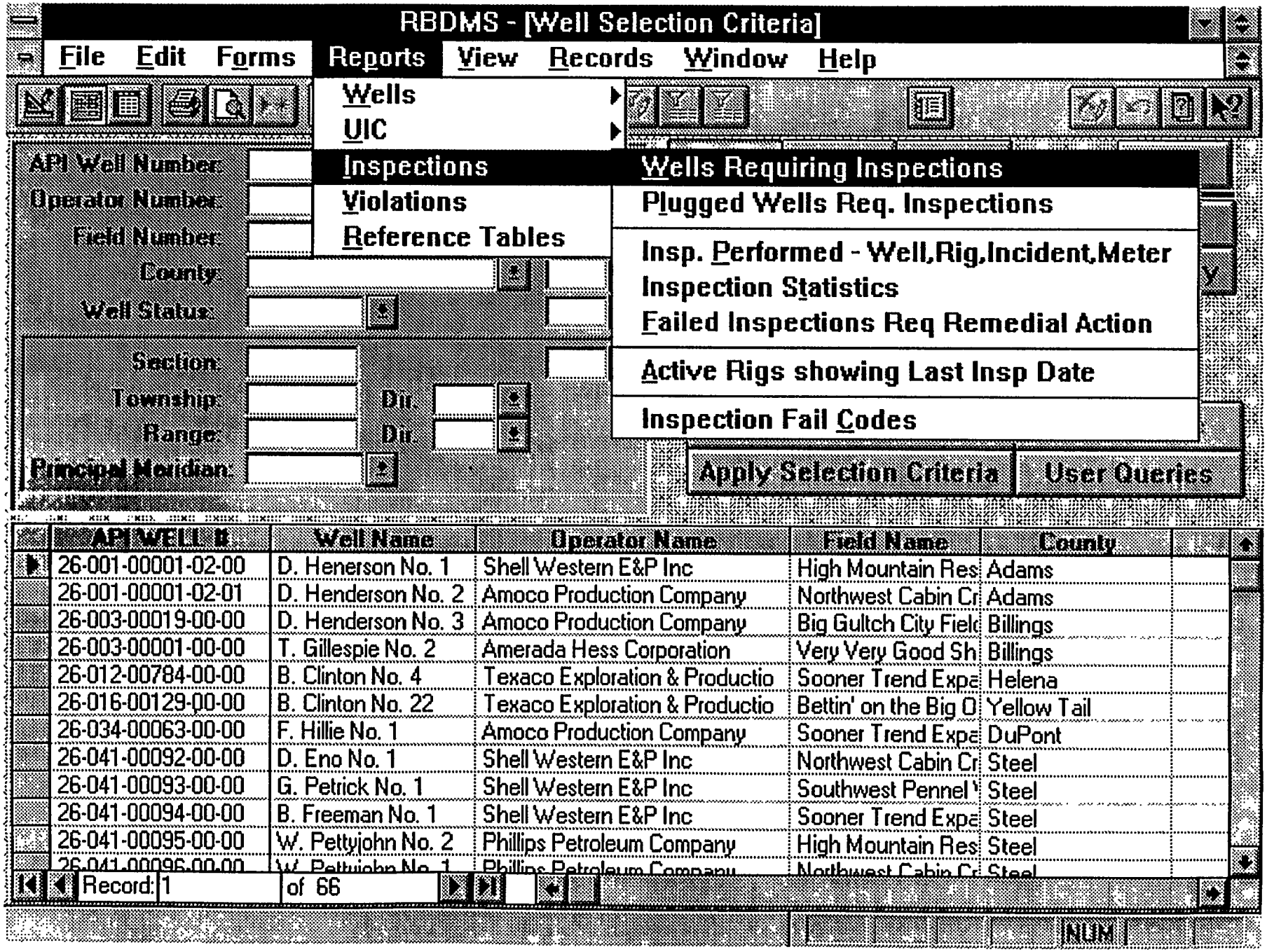

RBDMS - [Well Selection Criteria]
File Edit Forms Reports View Records Window Help
Wells (Permits, Completions, History, Logs)
Well History
WellBore
Production Test
UIC
Inspections
Violations/Compliance
Incidents
Enter Idle Well Reports
Reference Tables
Companies
Bonds
Oil and Gas Fields
Geologic Formations
Pools/Reservoirs
Rigs
Drillsites
Counties
Add
Inquiry
Exit
Inspections
Wells
Internal MIT
Well History
UIC Monitor
UIC Permit
Table
Queries
API Well Numb
Operator Numb
Field Numb
Coun
Well Statu
Sectio
Townsh
Range
Principal Meridian
Apply S
API WELL #
Well Name
Operator Name
26-001-00001-02-00 D. Henerson No. 1 Shell Western E&P Inc
26-001-00001-02-01 D. Henderson No. 2 Amoco Production Company
26-003-00019-00-00 D. Henderson No. 3 Amoco Production Company
26-003-00001-00-00 T. Gillespie No. 2 Amerada Hess Corporation
26-012-00784-00-00 B. Clinton No. 4 Texaco Exploration & Productio
26-016-00129-00-00 B. Clinton No. 22 Texaco Exploration & Productio
26-034-00063-00-00 F. Hillie No. 1 Amoco Production Company Sooner Trend Expa DuPont
26-041-00092-00-00 D. Eno No. 1 Shell Western E&P Inc Northwest Cabin Cr Steel
26-041-00093-00-00 G. Petrick No. 1 Shell Western E&P Inc Southwest Pennel Steel
26-041-00094-00-00 B. Freeman No. 1 Shell Western E&P Inc Sooner Trend Expa Steel
26-041-00095-00-00 W. Pettyjohn No. 2 Phillips Petroleum Company High Mountain Res Steel
Record: 1 of 66
NUM

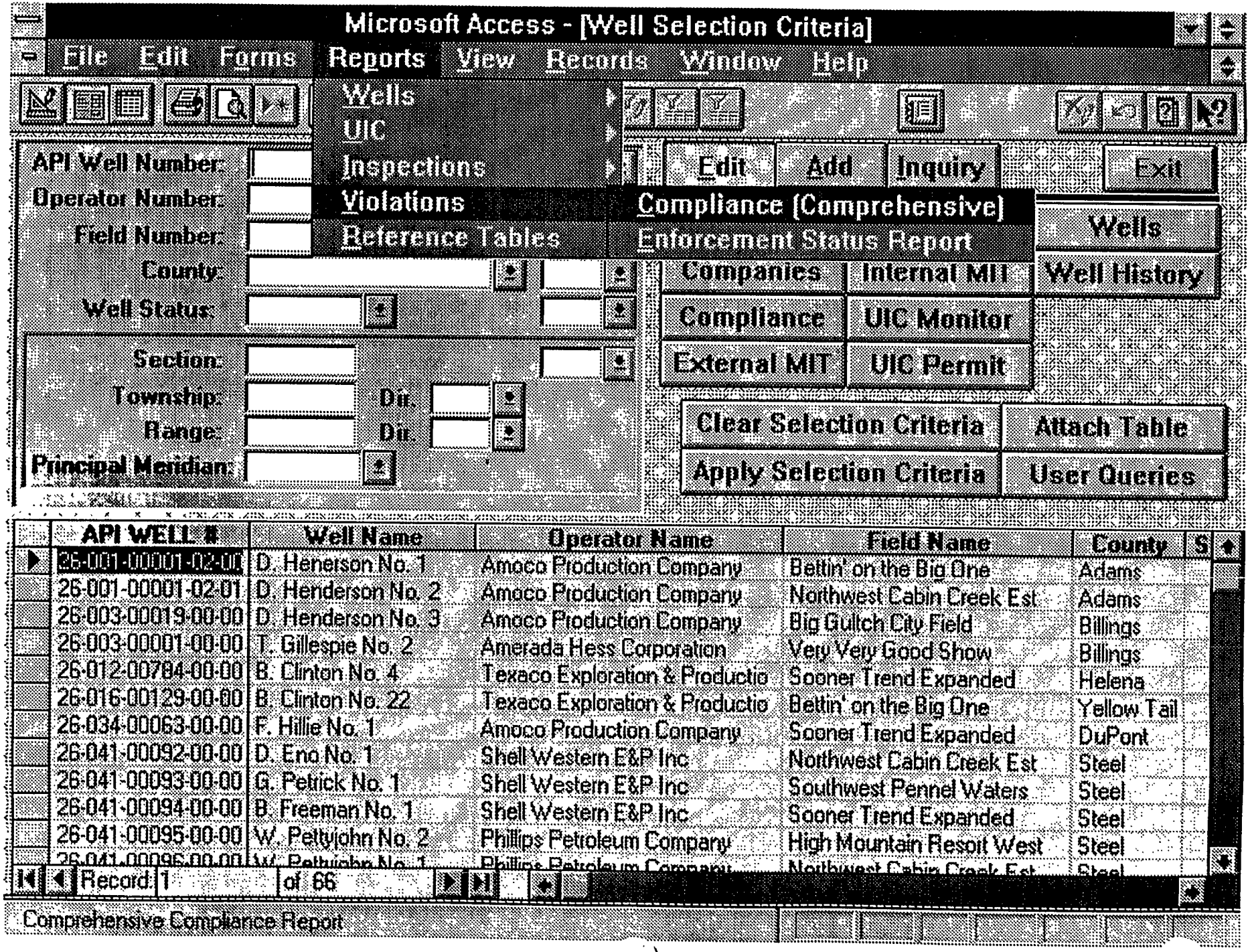

RBDMS - [Well Selection Criteria]
File Edit Forms Reports View Records Window Help
Wells (Permits, Completions, History, Logs)
Well History
WellBore
Production Test
UIC
Inspections
Violations/Compliance
Incidents
Enter Idle Well Reports
Reference Tables
Well Inspections
Incident Inspections
Rig Inspections
Meter Inspections
Inspection Fail Codes
Add
Inquiry
Exit
Inspections
Wells
Principal Meridian:
Apply Selection Criteria
User Queries
API WELL #
Well Name
Operator Name
Field Name
County
26-001-00001-02-00 D. Henerson No. 1 Shell Western E&P Inc High Mountain Res Adams
26-001-00001-02-01 D. Henderson No. 2 Amoco Production Company Northwest Cabin Cr Adams
26-003-00019-00-00 D. Henderson No. 3 Amoco Production Company Big Gultch City Fiel Billings
26-003-00001-00-00 T. Gillespie No. 2 Amerada Hess Corporation Very Very Good Sh Billings
26-012-00784-00-00 B. Clinton No. 4 Texaco Exploration & Productio Sooner Trend Expe Helena
26-016-00129-00-00 B. Clinton No. 22 Texaco Exploration & Productio Bettin' on the Big O Yellow Tail
26-034-00063-00-00 F. Hillie No. 1 Amoco Production Company Sooner Trend Expe DuPont
26-041-00092-00-00 D. Eno No. 1 Shell Western E&P Inc Northwest Cabin Cr Steel
26-041-00093-00-00 G. Petrick No. 1 Shell Western E&P Inc Southwest Pennel Steel
26-041-00094-00-00 B. Freeman No. 1 Shell Western E&P Inc Sooner Trend Expe Steel
26-041-00095-00-00 W. Pettyjohn No. 2 Phillips Petroleum Company High Mountain Res Steel
Record: 1 of 66
NUM

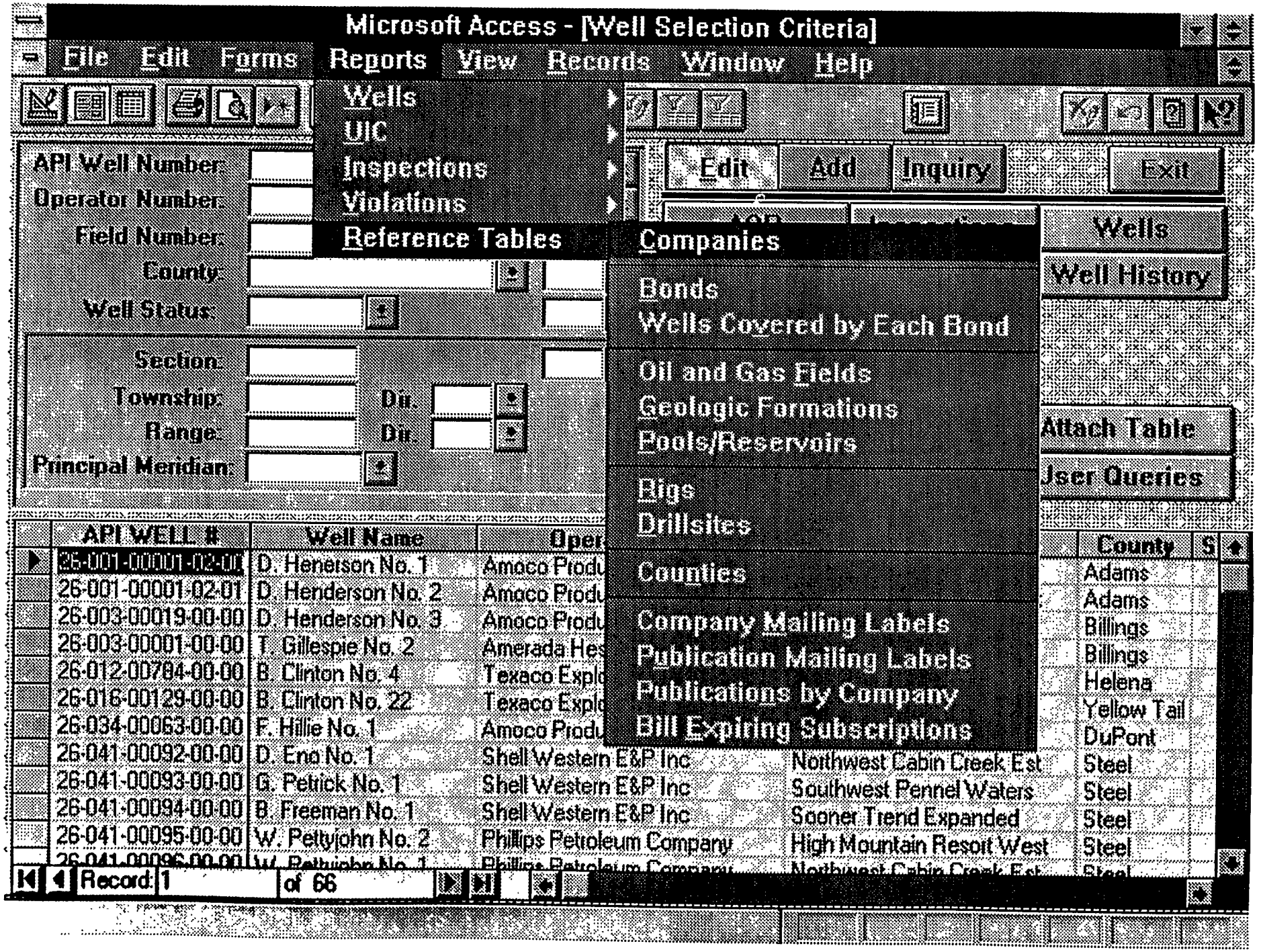

RBDMS - [Well Selection Criteria]
File Edit Forms Reports View Records Window Help
Wells (Permits, Completions, History, Logs)
Well History
WellBore
Production Test
UIC
Inspections
Violations/Compliance
Incidents
Enter Idle Well Reports
Reference Tables
UIC Permit Tracking
AOR Tracking Data
IMIT's
EMIT's
UIC Monitoring Reports
Env Risk Probability Analysis
Levels of Protection Analysis
Determine Wells in AOR
Add
Inquiry
Exit
API Well Numb
Operator Numb
Field Numb
Coun
Well Statu
Sectio
Townshi
Range:
Principal Meridian:
Apply S
API WELL #
Well Name
Operator Name
Field Name
County
26-001-00001-02-00 D. Henerson No. 1 Shell Western E&P Inc High Mountain Res Adams
26-001-00001-02-01 D. Henderson No. 2 Amoco Production Company Northwest Cabin Cr Adams
26-003-00019-00-00 D. Henderson No. 3 Amoco Production Company Big Gultch City Fiel Billings
26-003-00001-00-00 T. Gillespie No. 2 Amerada Hess Corporation Very Very Good Sh Billings
26-012-00784-00-00 B. Clinton No. 4 Texaco Exploration & Productio Sooner Trend Expa Helena
26-016-00129-00-00 B. Clinton No. 22 Texaco Exploration & Productio Bettin' on the Big O Yellow Tail
26-034-00063-00-00 F. Hillie No. 1 Amoco Production Company Sooner Trend Expa DuPont
26-041-00092-00-00 D. Eno No. 1 Shell Western E&P Inc Northwest Cabin Cr Steel
26-041-00093-00-00 G. Petrick No. 1 Shell Western E&P Inc Southwest Pennel Steel
26-041-00094-00-00 B. Freeman No. 1 Shell Western E&P Inc Sooner Trend Expa Steel
26-041-00095-00-00 W. Pettyjohn No. 2 Phillips Petroleum Company High Mountain Res Steel
Record: 1 of 66
UIC Permit or Order Form
NUM

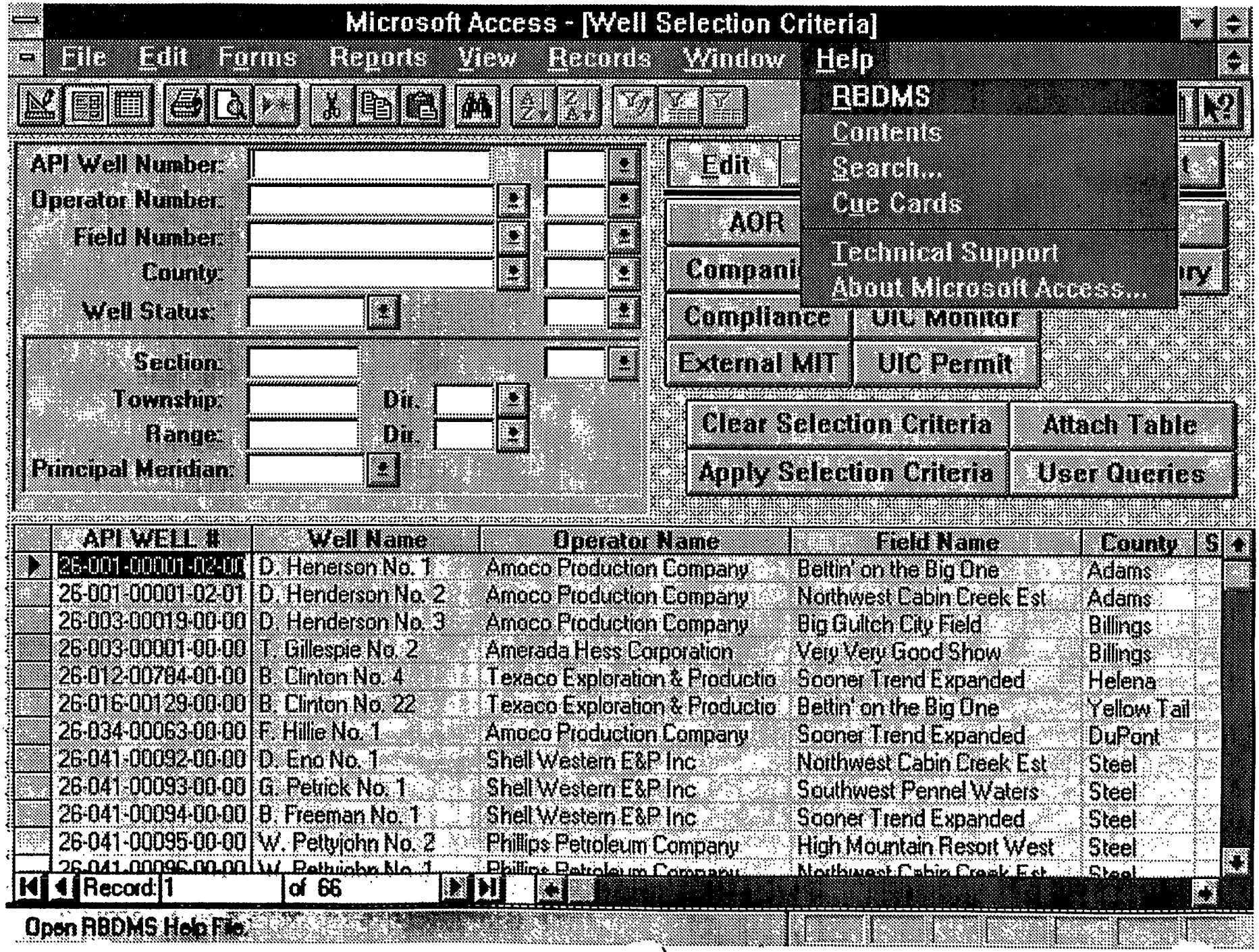

Microsoft Access - [Well Selection Criteria]
File Edit Forms Reports View Records Window Help
Wells
UIC
Inspections
Violations
Reference Tables
Well, Comprehensive Data
Well, Summary Data
Drilling Statistics
Sour Wells By County
Tight Holes
Incidents
Expired Permits and Delinquent Forms
List Delinquent Idle Well Reports
TA Wells Past Approval End Date
API Well Number:
Operator Number:
Field Number:
County:
Well Status:
Section:
Township:
Dir.
Range:
Dir.
Principal Meridian:
Apply Selection Criteria
User Queries
API WELL #
Well Name
Operator Name
Field Name
County
26-001-00001-02-00 D. Henerson No. 1 Amoco Production Company Bettin' on the Big One Adams
26-001-00001-02-01 D. Henderson No. 2 Amoco Production Company Northwest Cabin Creek Est Adams
26-003-00019-00-00 D. Henderson No. 3 Amoco Production Company Big Gultch City Field Billings
26-003-00001-00-00 T. Gillespie No. 2 Amerada Hess Corporation Very Very Good Show Billings
26-012-00784-00-00 B. Clinton No. 4 Texaco Exploration & Productio Sooner Trend Expanded Helena
26-016-00129-00-00 B. Clinton No. 22 Texaco Exploration & Productio Bettin' on the Big One Yellow Tail
26-034-00063-00-00 F. Hillie No. 1 Amoco Production Company Sooner Trend Expanded DuPont
26-041-00092-00-00 D. Eno No. 1 Shell Western E&P Inc Northwest Cabin Creek Est Steel
26-041-00093-00-00 G. Petrick No. 1 Shell Western E&P Inc Southwest Pennel Waters Steel
26-041-00094-00-00 B. Freeman No. 1 Shell Western E&P Inc Sooner Trend Expanded Steel
26-041-00095-00-00 W. Pettyjohn No. 2 Phillips Petroleum Company High Mountain Resort West Steel
Record: 1 of 66

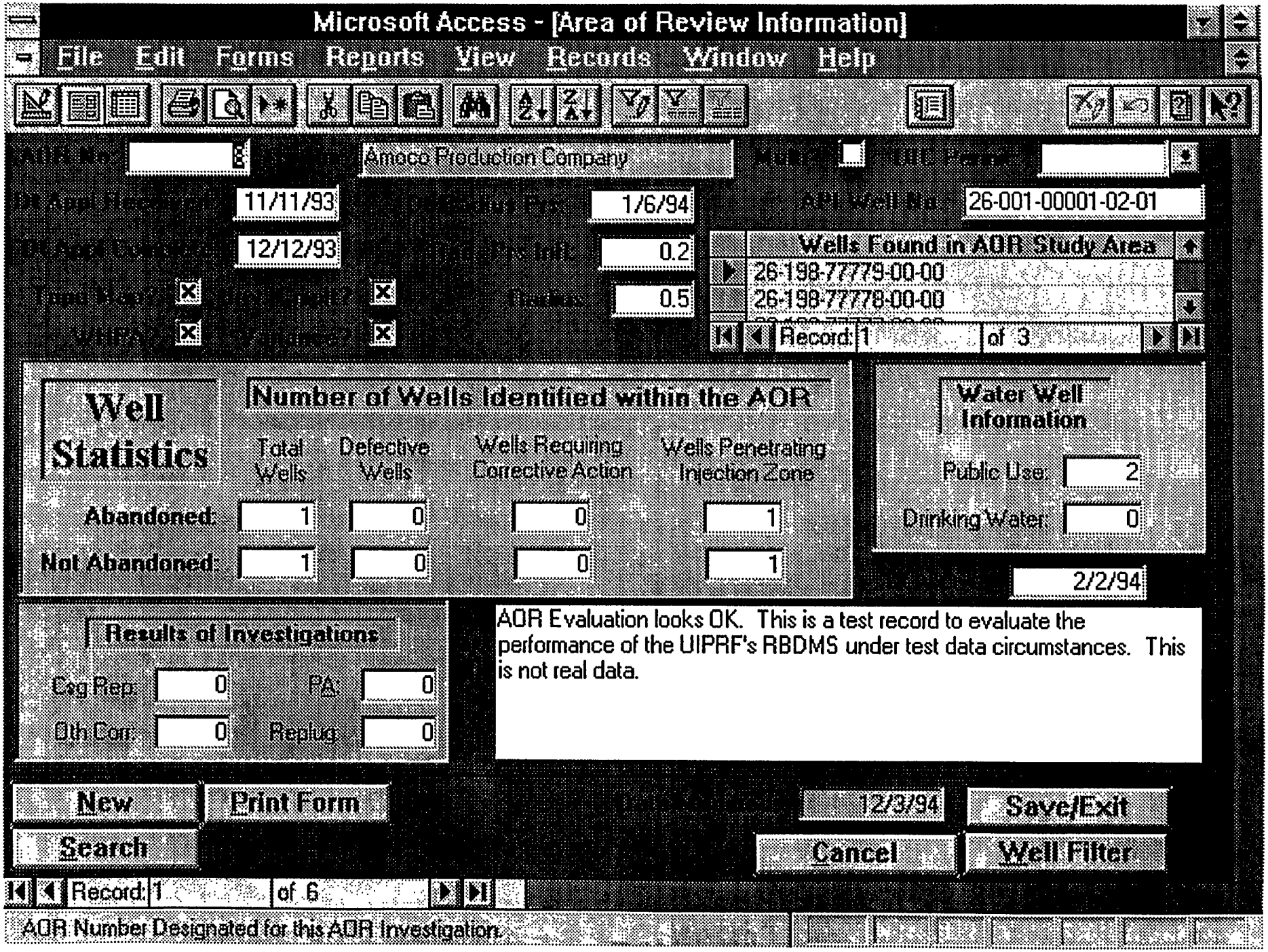

RBDMS - [Well Selection Criteria]
File Edit Forms Reports View Records Window Help
Wells
UIC
Inspections
Violations
Reference Tables
Permit Data Report
AOR Summary Report
Wells Within AOR's
Pressure Test Form
APM Tracking Report
IMIT Tracking Report
EMIT Well Failure Summary
EMIT Results
Injection Monitoring Report
Inj Pressures/Rates > Permitted
EPA 7520 Reports
Environmental Risk Analysis
Inactive UIC Wells
API Well Number:
Operator Number:
Field Number:
County:
Well Status:
Section:
Township:
Dir.
Range:
Dir.
Principal Meridian:
Exit
Wells
ell History
ach Table
er Queries
API WELL #
Well Name
Oper
nty
26-001-00001-02-00 D. Henerson No. 1 Shell Western
26-001-00001-02-01 D. Henderson No. 2 Amoco Produ
26-003-00019-00-00 D. Henderson No. 3 Amoco Produ
26-003-00001-00-00 T. Gillespie No. 2 Amerada Hes
26-012-00784-00-00 B. Clinton No. 4 Texaco Exploration & Productio Sooner Trend Expa Helena
26-016-00129-00-00 B. Clinton No. 22 Texaco Exploration & Productio Bettin' on the Big O Yellow Tail
26-034-00063-00-00 F. Hillie No. 1 Amoco Production Company Sooner Trend Expa DuPont
26-041-00092-00-00 D. Eno No. 1 Shell Western E&P Inc Northwest Cabin Cr Steel
26-041-00093-00-00 G. Petrick No. 1 Shell Western E&P Inc Southwest Pennel Steel
26-041-00094-00-00 B. Freeman No. 1 Shell Western E&P Inc Sooner Trend Expa Steel
26-041-00095-00-00 W. Pettyjohn No. 2 Phillips Petroleum Company High Mountain Res Steel
Record: 1 of 66
UIC Permit/Order Summary Report (Well by Well)
NUM

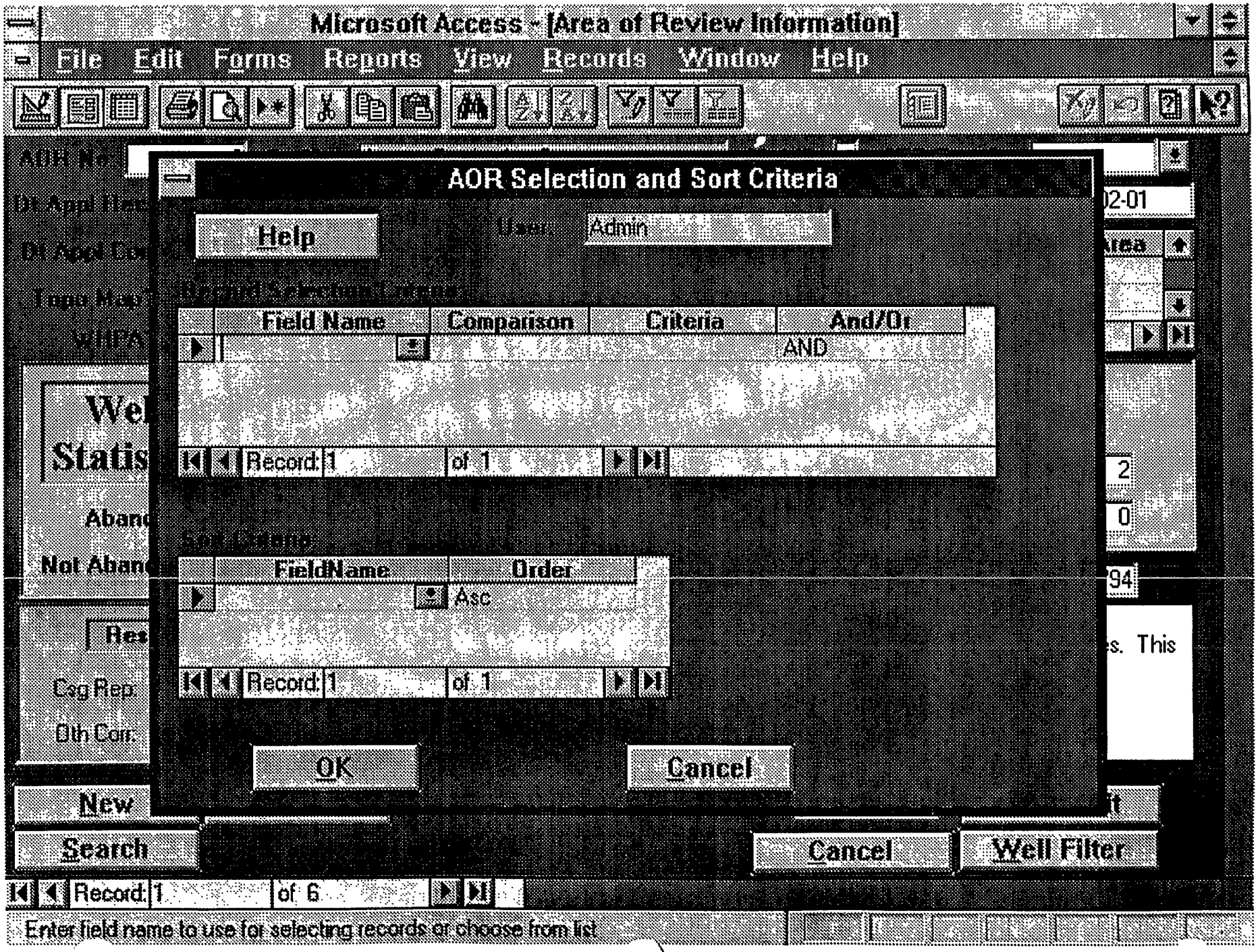

RBDMS - [Well Selection Criteria]
File Edit Forms Reports View Records Window Help
Wells
UIC
Inspections
Violations
Reference Tables
Wells Requiring Inspections
Plugged Wells Req. Inspections
Insp. Performed - Well,Rig,Incident,Meter
Inspection Statistics
Failed Inspections Req Remedial Action
Active Rigs showing Last Insp Date
Inspection Fail Codes
API Well Number:
Operator Number:
Field Number:
County:
Well Status:
Section:
Township:
Dir.
Range:
Dir.
Principal Meridian:
Apply Selection Criteria
User Queries
API WELL #
Well Name
Operator Name
Field Name
County
26-001-00001-02-00 D. Henerson No. 1 Shell Western E&P Inc High Mountain Res Adams
26-001-00001-02-01 D. Henderson No. 2 Amoco Production Company Northwest Cabin Cr Adams
26-003-00019-00-00 D. Henderson No. 3 Amoco Production Company Big Gultch City Fiel Billings
26-003-00001-00-00 T. Gillespie No. 2 Amerada Hess Corporation Very Very Good Sh Billings
26-012-00784-00-00 B. Clinton No. 4 Texaco Exploration & Productio Sooner Trend Expa Helena
26-016-00129-00-00 B. Clinton No. 22 Texaco Exploration & Productio Bettin' on the Big O Yellow Tail
26-034-00063-00-00 F. Hillie No. 1 Amoco Production Company Sooner Trend Expa DuPont
26-041-00092-00-00 D. Eno No. 1 Shell Western E&P Inc Northwest Cabin Cr Steel
26-041-00093-00-00 G. Petrick No. 1 Shell Western E&P Inc Southwest Pennel Steel
26-041-00094-00-00 B. Freeman No. 1 Shell Western E&P Inc Sooner Trend Expa Steel
26-041-00095-00-00 W. Pettyjohn No. 2 Phillips Petroleum Company High Mountain Res Steel
Record: 1 of 66
NUM

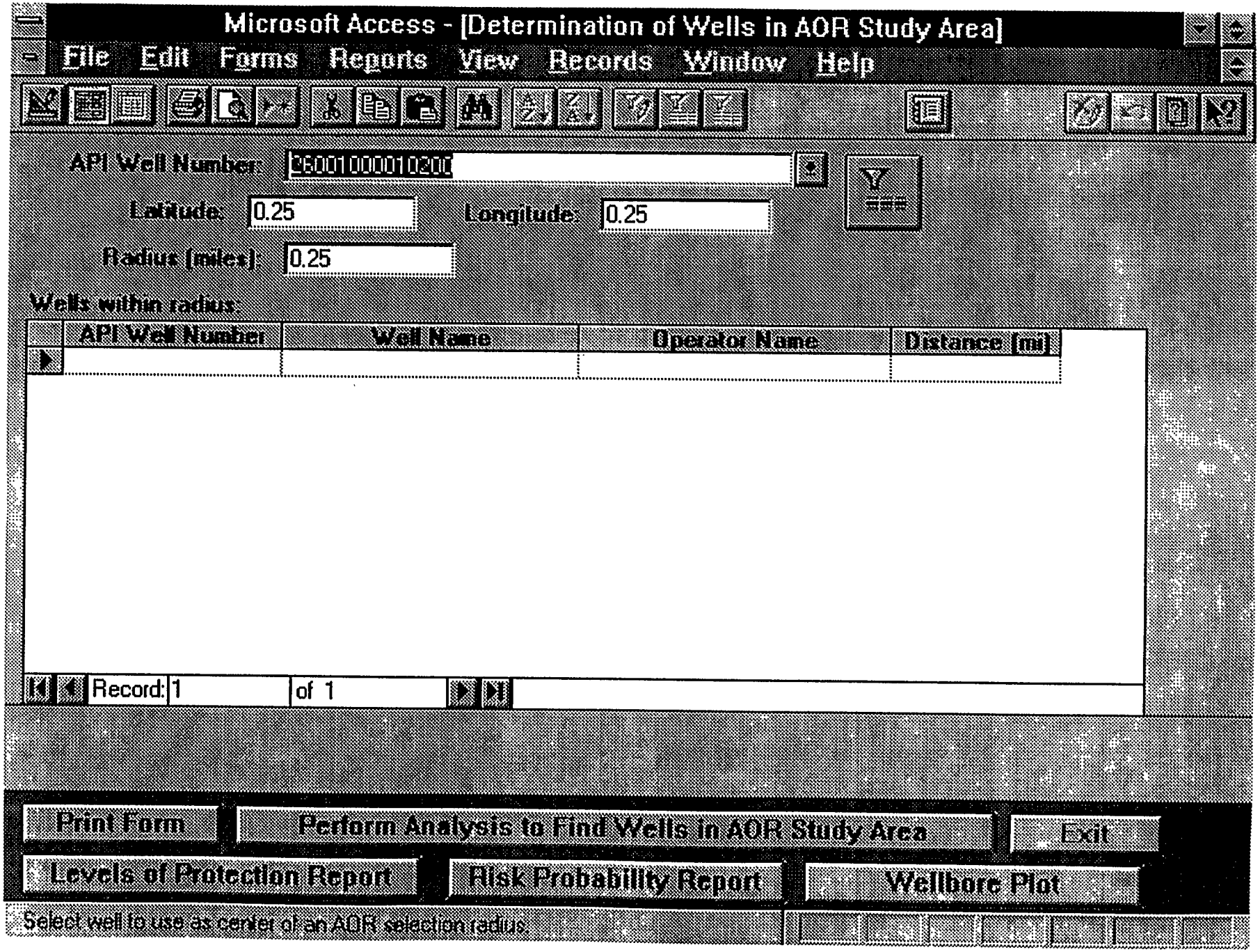

Microsoft Access - [Well Selection Criteria]
File Edit Forms Reports View Records Window Help
Wells
UIC
Inspections
Violations
Reference Tables
Compliance (Comprehensive)
Enforcement Status Report
API Well Number:
Operator Number:
Field Number:
County:
Well Status:
Section:
Township:
Dir.
Range:
Dir.
Principal Meridian:
Edit
Add
Inquiry
Exit
Wells
Well History
Companies
Internal MIT
Compliance
UIC Monitor
External MIT
UIC Permit
Clear Selection Criteria
Attach Table
Apply Selection Criteria
User Queries
API WELL #
Well Name
Operator Name
Field Name
County
26-001-00001-02-00 D. Henerson No. 1 Amoco Production Company Bettin' on the Big One Adams
26-001-00001-02-01 D. Henderson No. 2 Amoco Production Company Northwest Cabin Creek Est Adams
26-003-00019-00-00 D. Henderson No. 3 Amoco Production Company Big Gulch City Field Billings
26-003-00001-00-00 T. Gillespie No. 2 Amerada Hess Corporation Very Very Good Show Billings
26-012-00784-00-00 B. Clinton No. 4 Texaco Exploration & Productio Sooner Trend Expanded Helena
26-016-00129-00-00 B. Clinton No. 22 Texaco Exploration & Productio Bettin' on the Big One Yellow Tail
26-034-00063-00-00 F. Hillie No. 1 Amoco Production Company Sooner Trend Expanded DuPont
26-041-00092-00-00 D. Eno No. 1 Shell Western E&P Inc Northwest Cabin Creek Est Steel
26-041-00093-00-00 G. Petrick No. 1 Shell Western E&P Inc Southwest Pennel Waters Steel
26-041-00094-00-00 B. Freeman No. 1 Shell Western E&P Inc Sooner Trend Expanded Steel
26-041-00095-00-00 W. Pettyjohn No. 2 Phillips Petroleum Company High Mountain Resort West Steel
Record: 1 of 66
Comprehensive Compliance Report

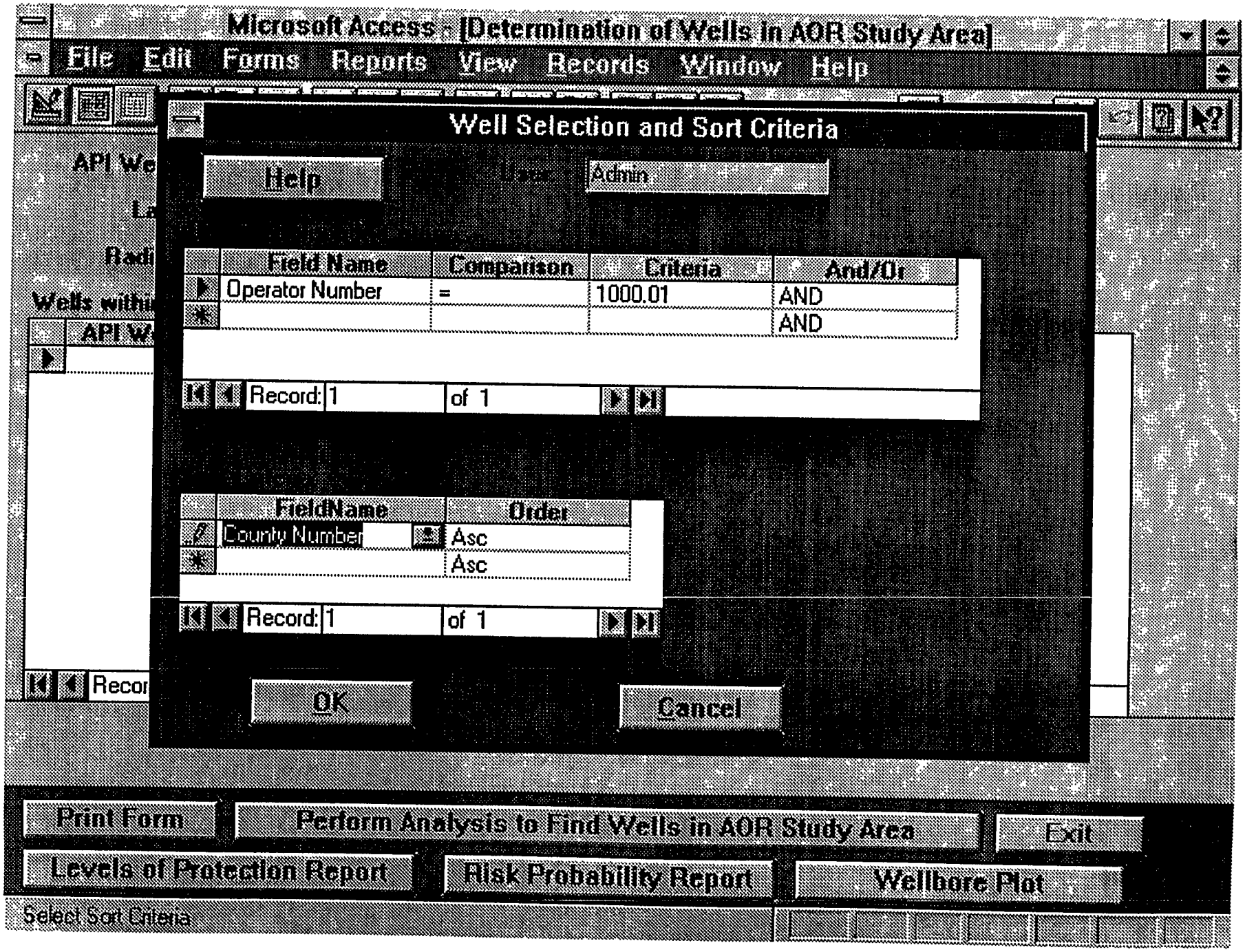

Microsoft Access - [Well Selection Criteria]
File Edit Forms Reports View Records Window Help
Wells
UIC
Inspections
Violations
Reference Tables
Companies
Bonds
Wells Covered by Each Bond
Oil and Gas Fields
Geologic Formations
Pools/Reservoirs
Rigs
Drillsites
Counties
Company Mailing Labels
Publication Mailing Labels
Publications by Company
Bill Expiring Subscriptions
Edit
Add
Inquiry
Exit
Wells
Well History
Attach Table
User Queries
API Well Number:
Operator Number:
Field Number:
County:
Well Status:
Section:
Township:
Dir.
Range:
Dir.
Principal Meridian:
API WELL #
Well Name
Oper
County
26-001-00001-02-00 D. Henetson No. 1 Amoco Produ Adams
26-001-00001-02-01 D. Henderson No. 2 Amoco Produ Adams
26-003-00019-00-00 D. Henderson No. 3 Amoco Produ Billings
26-003-00001-00-00 T. Gillespie No. 2 Amerada Hes Billings
26-012-00704-00-00 B. Clinton No. 4 Texaco Explo Helena
26-016-00129-00-00 B. Clinton No. 22 Texaco Explo Yellow Tail
26-034-00063-00-00 F. Hillie No. 1 Amoco Produ DuPont
26-041-00092-00-00 D. Eno No. 1 Shell Western E&P Inc Northwest Cabin Creek Est Steel
26-041-00093-00-00 G. Petrick No. 1 Shell Western E&P Inc Southwest Pennel Waters Steel
26-041-00094-00-00 B. Freeman No. 1 Shell Western E&P Inc Sooner Trend Expanded Steel
26-041-00095-00-00 W. Pettyjohn No. 2 Phillips Petroleum Company High Mountain Resort West Steel
Record: 1 of 66

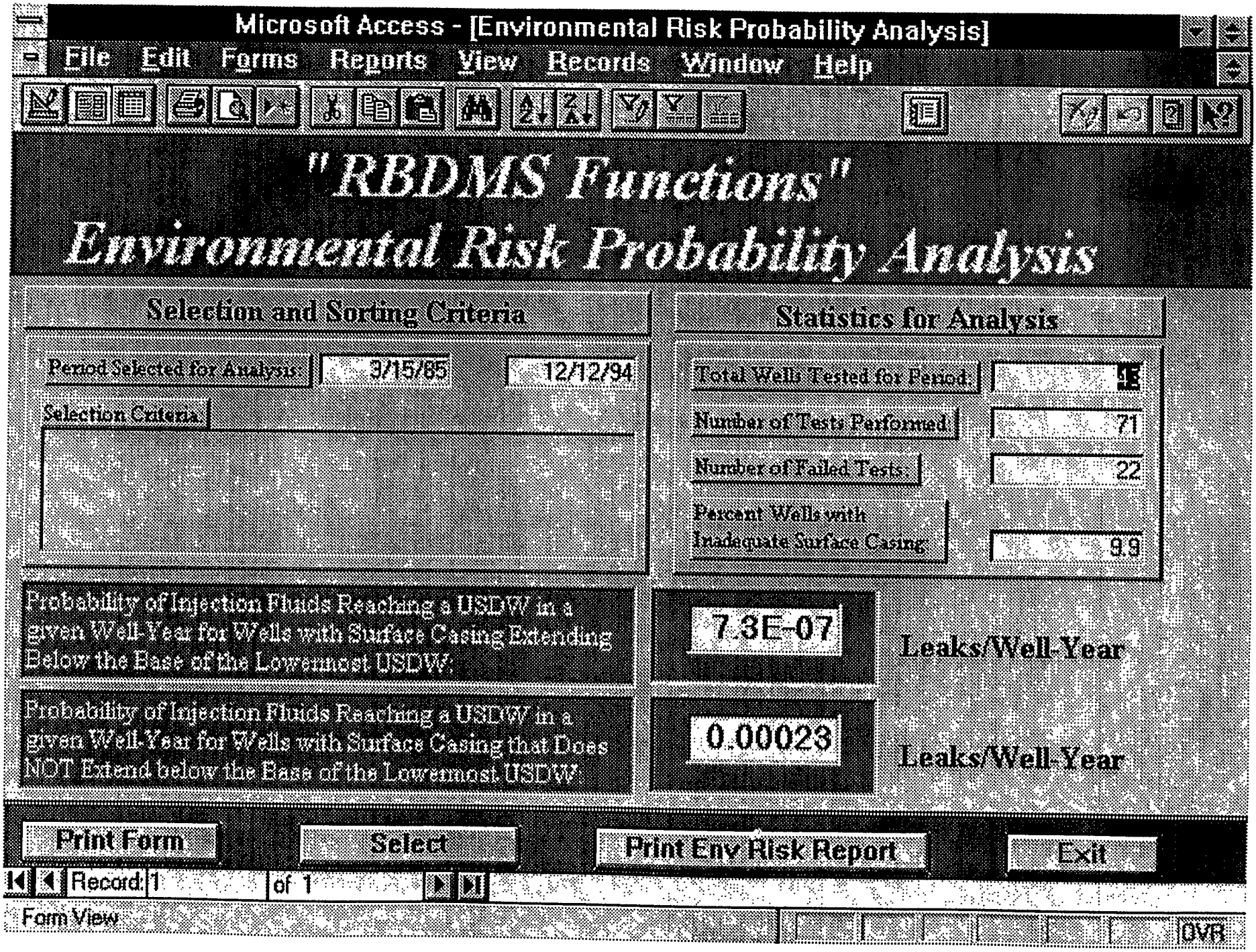

Microsoft Access - [Well Selection Criteria]
File Edit Forms Reports View Records Window Help
RBDMS
Contents
Search...
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Technical Support
About Microsoft Access...
API Well Number:
Operator Number:
Field Number:
County:
Well Status:
Section:
Township:
Dir.
Range:
Dir.
Principal Meridian:
Edit
AOR
Compani
Compliance
UIC Monitor
External MIT
UIC Permit
Clear Selection Criteria
Attach Table
Apply Selection Criteria
User Queries
API WELL #
Well Name
Operator Name
Field Name
County
26-001-00001-02-00 D. Henerson No. 1 Amoco Production Company Bettin' on the Big One Adams
26-001-00001-02-01 D. Henderson No. 2 Amoco Production Company Northwest Cabin Creek Est Adams
26-003-00019-00-00 D. Henderson No. 3 Amoco Production Company Big Gulch City Field Billings
26-003-00001-00-00 T. Gillespie No. 2 Amerada Hess Corporation Very Very Good Show Billings
26-012-00784-00-00 B. Clinton No. 4 Texaco Exploration & Productio Sooner Trend Expanded Helena
26-016-00129-00-00 B. Clinton No. 22 Texaco Exploration & Productio Bettin' on the Big One Yellow Tail
26-034-00063-00-00 F. Hillie No. 1 Amoco Production Company Sooner Trend Expanded DuPont
26-041-00092-00-00 D. Eno No. 1 Shell Western E&P Inc Northwest Cabin Creek Est Steel
26-041-00093-00-00 G. Petrick No. 1 Shell Western E&P Inc Southwest Pennel Waters Steel
26-041-00094-00-00 B. Freeman No. 1 Shell Western E&P Inc Sooner Trend Expanded Steel
26-041-00095-00-00 W. Pettyjohn No. 2 Phillips Petroleum Company High Mountain Resort West Steel
Record: 1 of 66
Open RBDMS Help File.

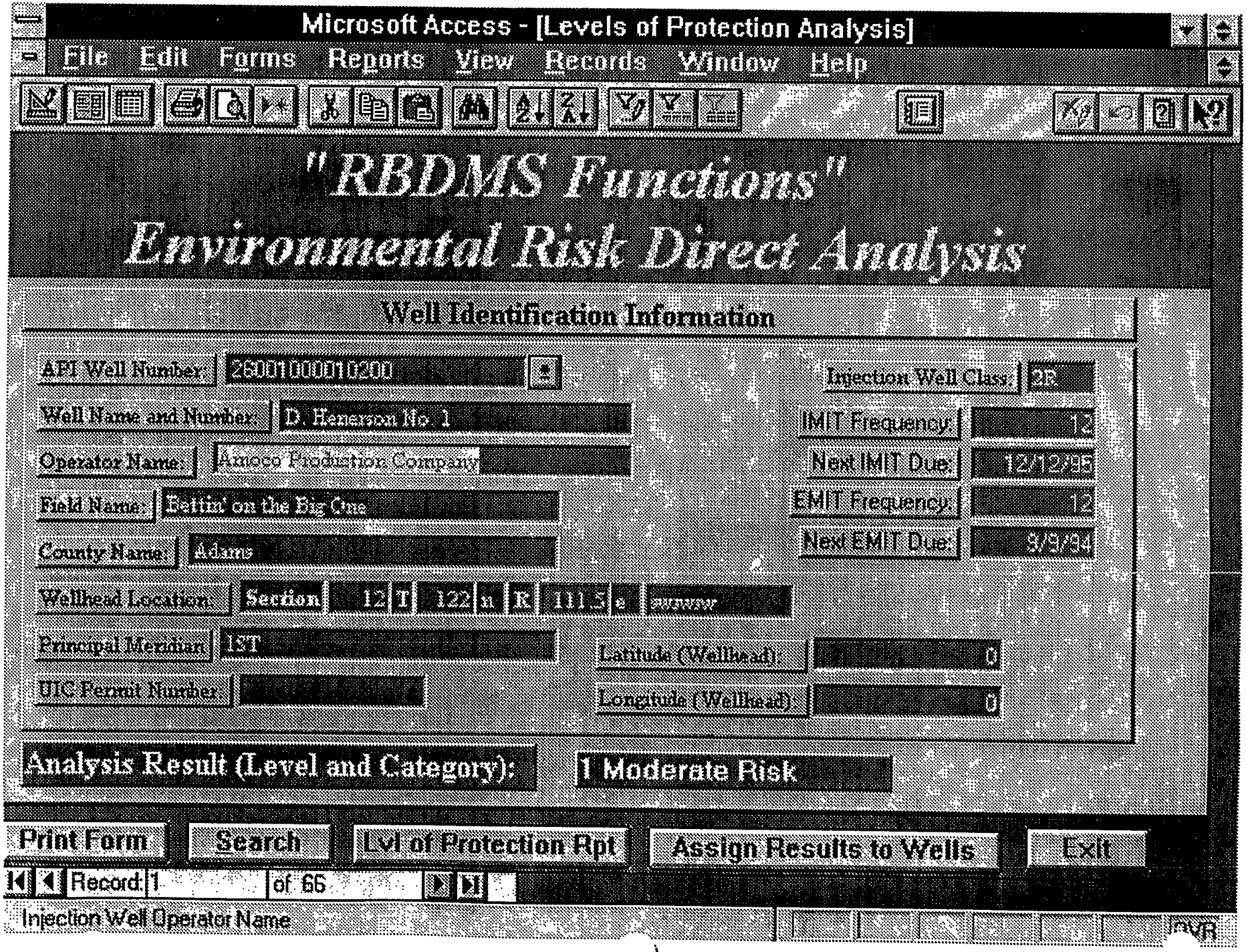

Microsoft Access - [Area of Review Information]
File Edit Forms Reports View Records Window Help
Amoco Production Company
11/11/93
1/6/94
26-001-00001-02-01
12/12/93
0.2
0.5
Wells Found in AOR Study Area
26-158-77779-00-00
26-158-77778-00-00
Record: 1 of 3
Well Statistics
Number of Wells Identified within the AOR
Total Wells
Defective Wells
Wells Requiring Corrective Action
Wells Penetrating Injection Zone
Abandoned: 1 0 0 1
Not Abandoned: 1 0 0 1
Water Well Information
Public Use: 2
Drinking Water: 0
2/2/94
Results of Investigations
Cog Rep: 0
PA: 0
Oth Corr: 0
Replug: 0
AOR Evaluation looks OK. This is a test record to evaluate the performance of the UIPRF's RBDMS under test data circumstances. This is not real data.
New
Print Form
12/3/94
Save/Exit
Search
Cancel
Well Filter
Record: 1 of 6
AOR Number Designated for this AOR Investigation.

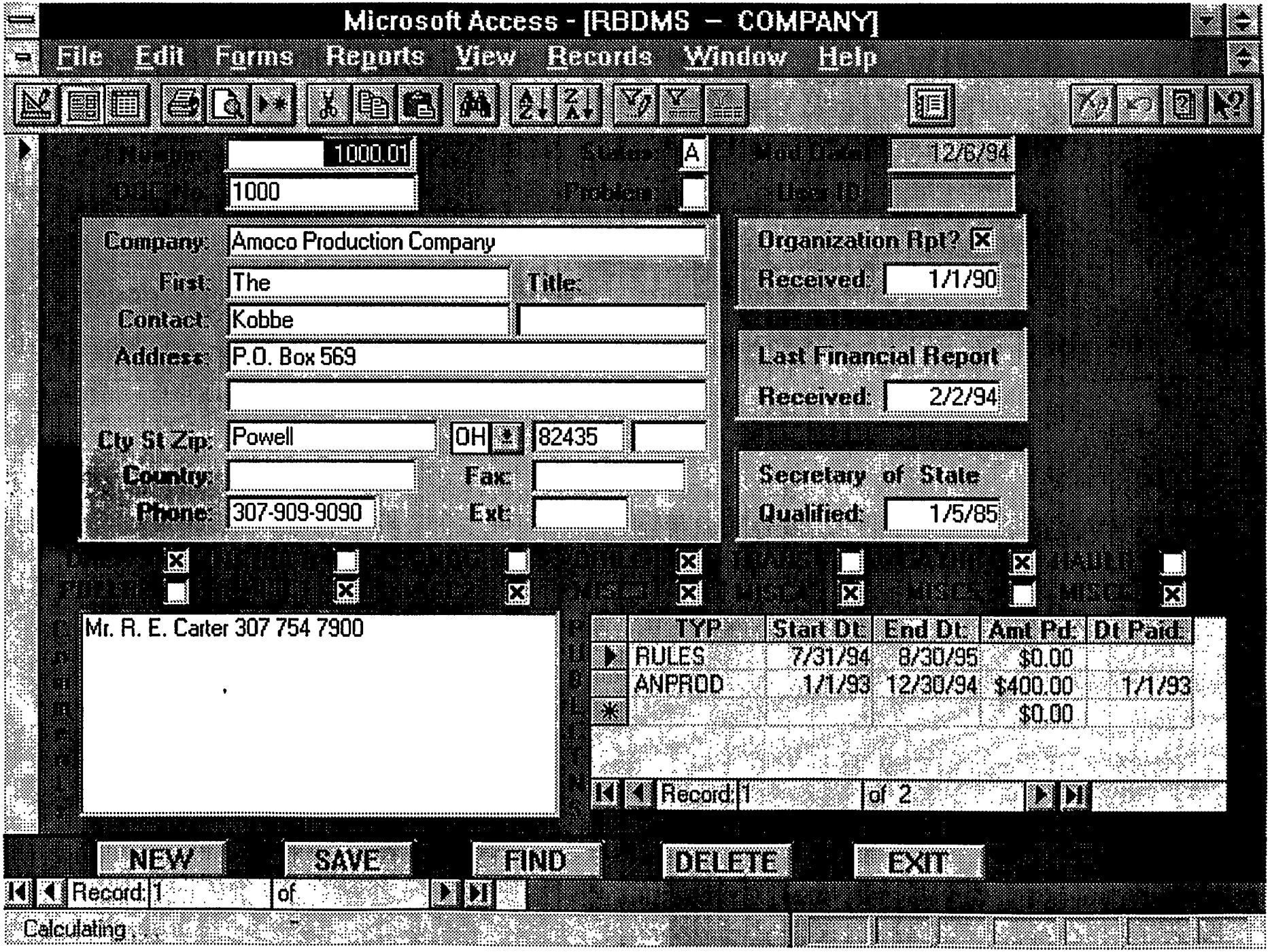

Microsoft Access - [Area of Review Information]
File Edit Forms Reports View Records Window Help
AOR Selection and Sort Criteria
Help
User: Admin
Field Name
Comparison
Criteria
And/Or
AND
Record: 1 of 1
FieldName
Order
Asc
Record: 1 of 1
OK
Cancel
New
Search
Cancel
Well Filter
Record: 1 of 6
Enter field name to use for selecting records or choose from list

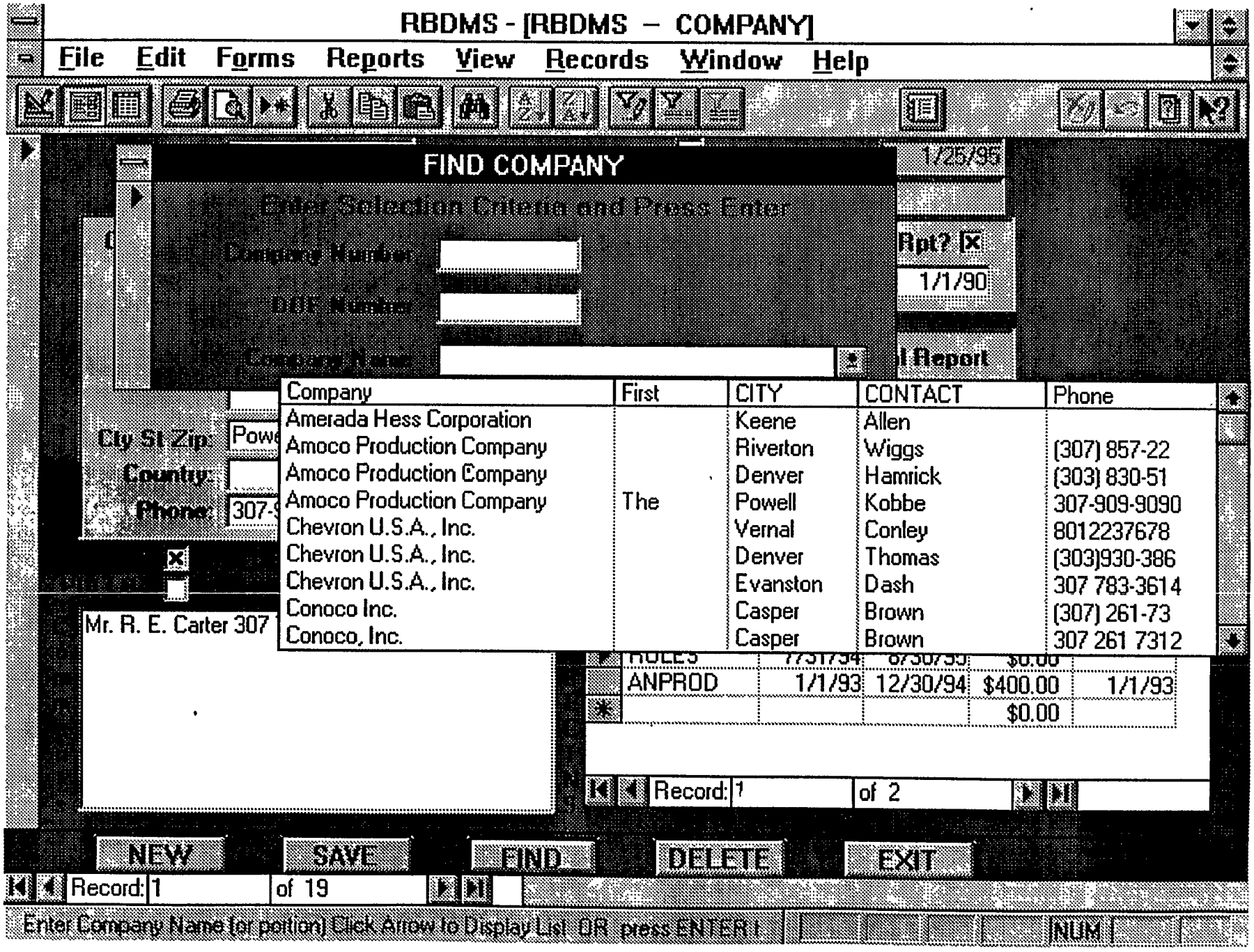

Microsoft Access - [Determination of Wells in AOR Study Area]
File Edit Forms Reports View Records Window Help
API Well Number:
Latitude: 0.25
Longitude: 0.25
Radius (miles): 0.25
Wells within radius:
API Well Number
Well Name
Operator Name
Distance (mi)
Record: 1 of 1
Print Form
Perform Analysis to Find Wells in AOR Study Area
Exit
Levels of Protection Report
Risk Probability Report
Wellbore Plot
Select well to use as center of an AOR selection radius.

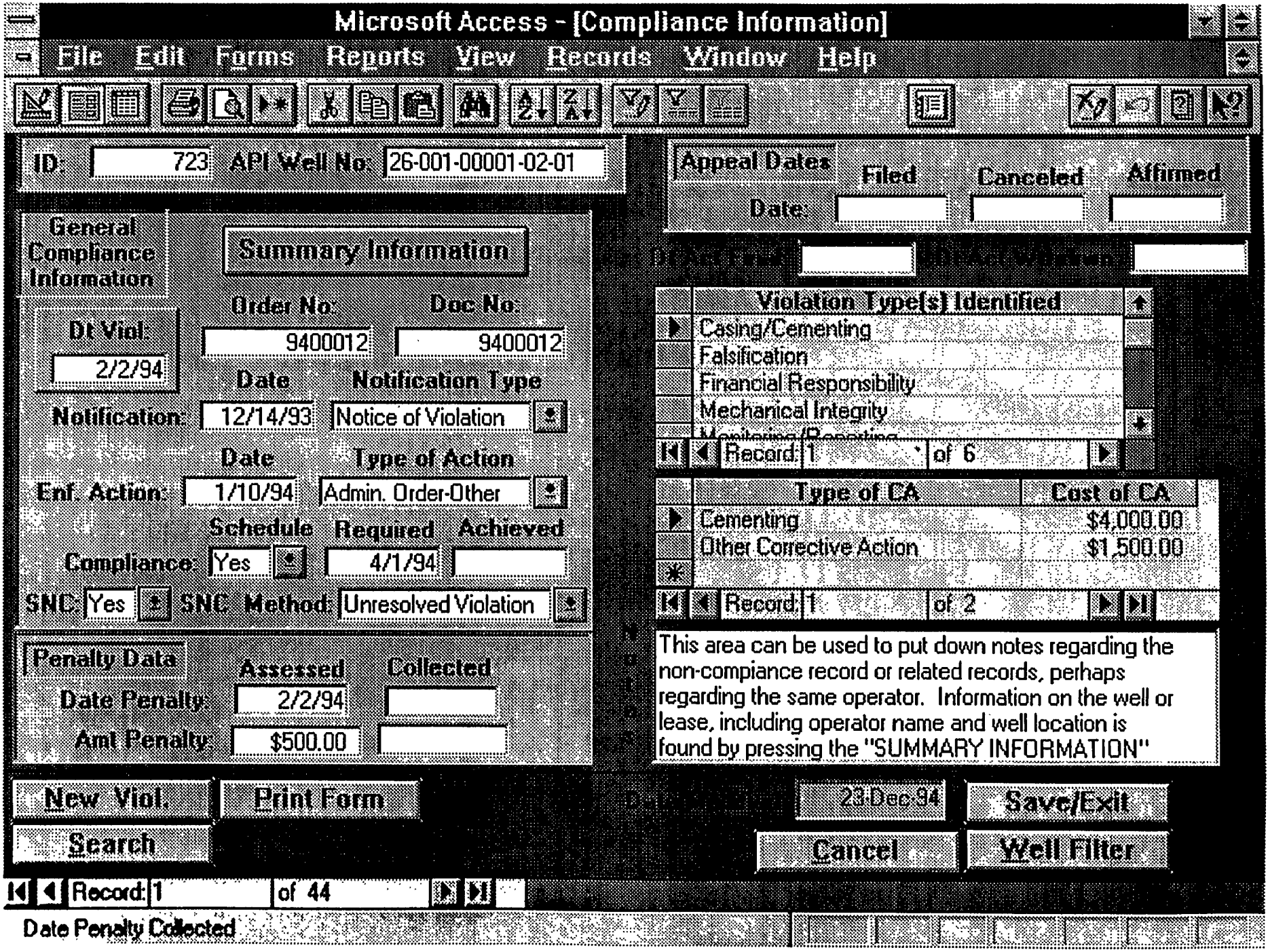

Microsoft Access - [Determination of Wells in AOR Study Area]
File Edit Forms Reports View Records Window Help
Well Selection and Sort Criteria
Help
User: Admin
Field Name
Comparison
Criteria
And/Or
Operator Number
=
1000.01
AND
AND
Record: 1 of 1
FieldName
Order
County Number
Asc
Asc
Record: 1 of 1
OK
Cancel
Print Form
Perform Analysis to Find Wells in AOR Study Area
Exit
Levels of Protection Report
Risk Probability Report
Wellbore Plot
Select Sort Criteria

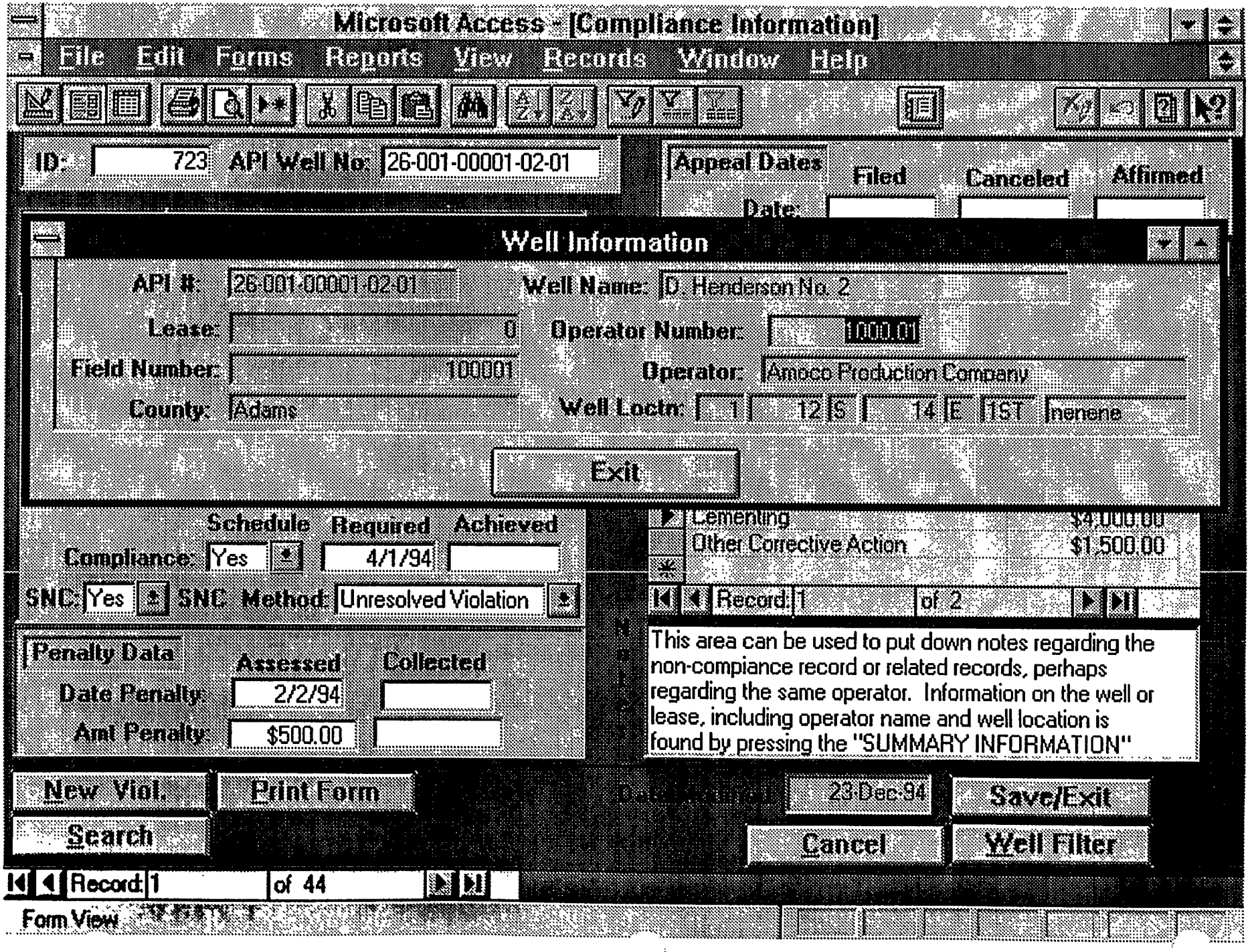

Microsoft Access - [Environmental Risk Probability Analysis]
File Edit Forms Reports View Records Window Help
"RBDMS Functions"
Environmental Risk Probability Analysis
Selection and Sorting Criteria
Period Selected for Analysis:
3/15/85
12/12/94
Selection Criteria:
Statistics for Analysis
Total Wells Tested for Period:
55
Number of Tests Performed:
71
Number of Failed Tests:
22
Percent Wells with Inadequate Surface Casing:
9.9
Probability of Injection Fluids Reaching a USDW in a given Well-Year for Wells with Surface Casing Extending Below the Base of the Lowermost USDW:
7.3E-07
Leaks/Well-Year
Probability of Injection Fluids Reaching a USDW in a given Well-Year for Wells with Surface Casing that Does NOT Extend below the Base of the Lowermost USDW
0.00023
Leaks/Well-Year
Print Form
Select
Print Env Risk Report
Exit
Record: 1
of 1
Form View
OVR

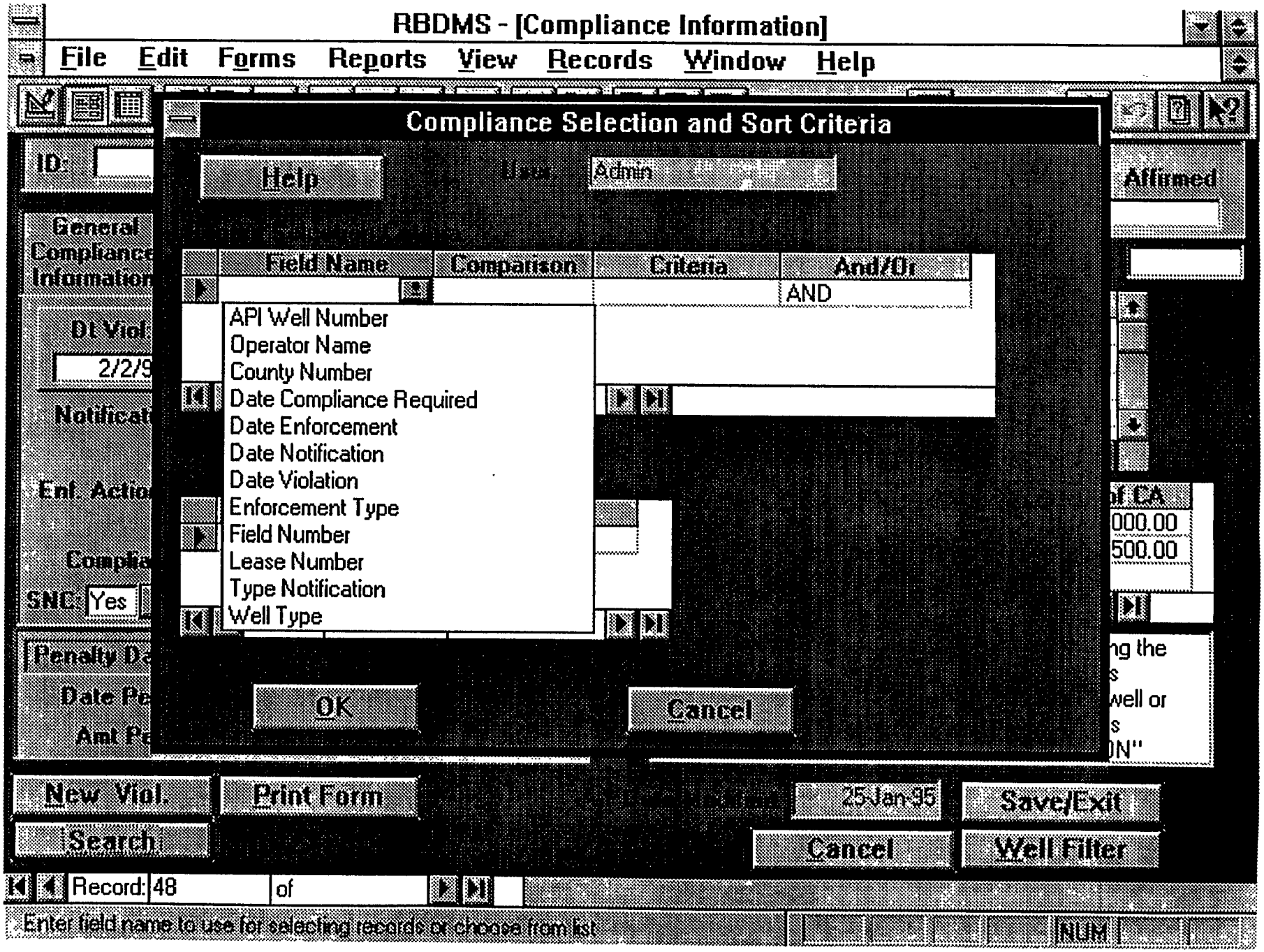

Microsoft Access - [Levels of Protection Analysis]
File Edit Forms Reports View Records Window Help
"RBDMS Functions"
Environmental Risk Direct Analysis
Well Identification Information
API Well Number: 26001000010300
Well Name and Number: D. Henerson No. 1
Operator Name: Amoco Production Company
Field Name: Bettini on the Big One
County Name: Adams
Wellhead Location: Section 12 T 122 N R 101 W
Principal Meridian: 1ST
UIC Permit Number:
Injection Well Class: 2R
IMIT Frequency: 12
Next IMIT Due: 12/12/95
EMIT Frequency: 12
Next EMIT Due: 9/9/94
Latitude (Wellhead): 0
Longitude (Wellhead): 0
Analysis Result (Level and Category): 1 Moderate Risk
Print Form
Search
Lvl of Protection Rpt
Assign Results to Wells
Exit
Record: 1 of 66
Injection Well Operator Name

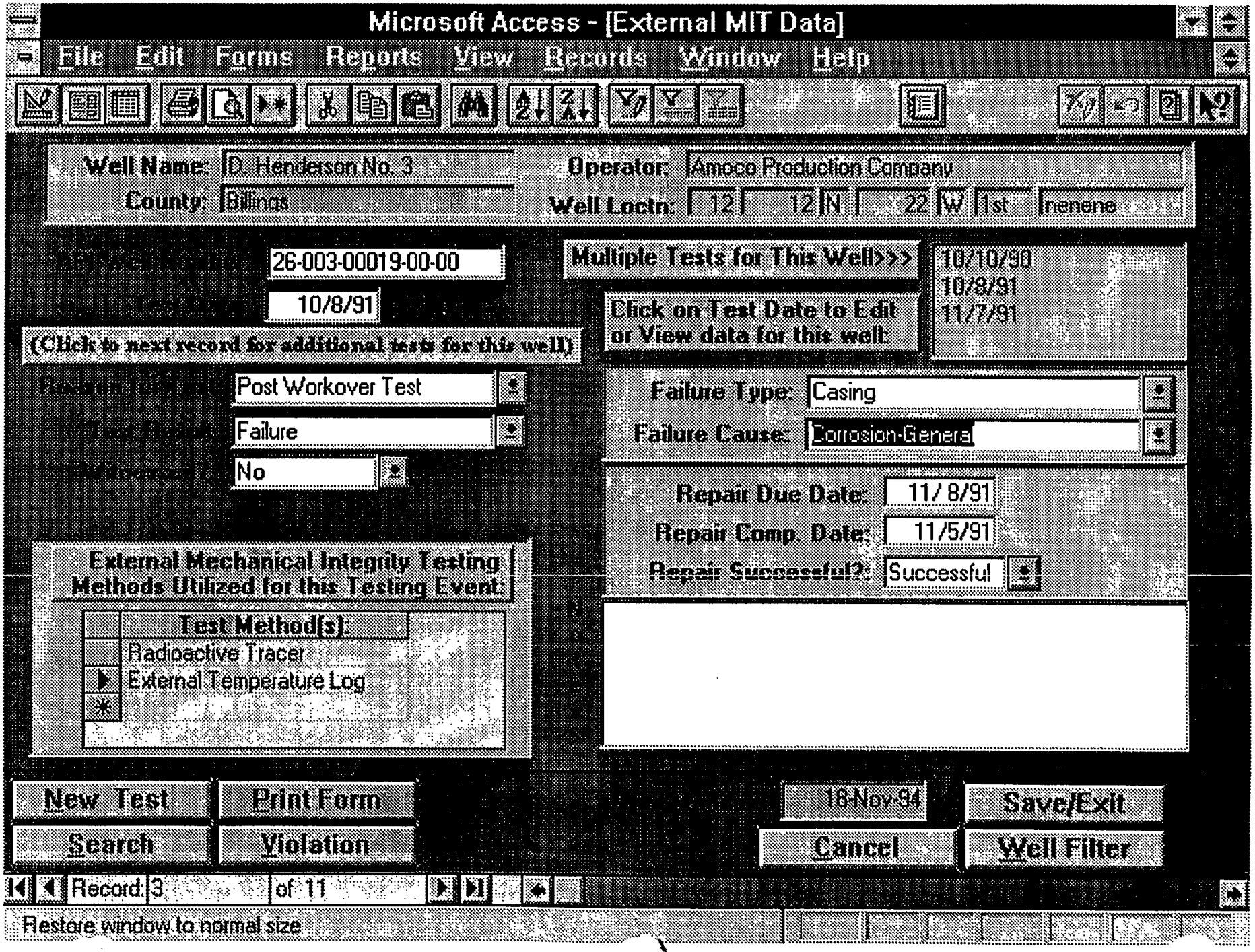

Microsoft Access - [RBDMS – COMPANY]
File Edit Forms Reports View Records Window Help
1000.01
1000
A
12/6/94
Company: Amoco Production Company
First: The
Title:
Contact: Kobbe
Address: P.O. Box 569
City St Zip: Powell OH 82435
Country:
Fax:
Phone: 307-909-9090
Ext:
Organization Rpt?
Received: 1/1/90
Last Financial Report
Received: 2/2/94
Secretary of State
Qualified: 1/5/85
Mr. R. E. Carter 307 754 7900
TYP Start Dt. End Dt. Amt Pd. Dt Paid.
RULES 7/31/94 8/30/95 $0.00
ANPROD 1/1/93 12/30/94 $400.00 1/1/93
$0.00
Record: 1 of 2
NEW SAVE FIND DELETE EXIT
Record: 1 of
Calculating...

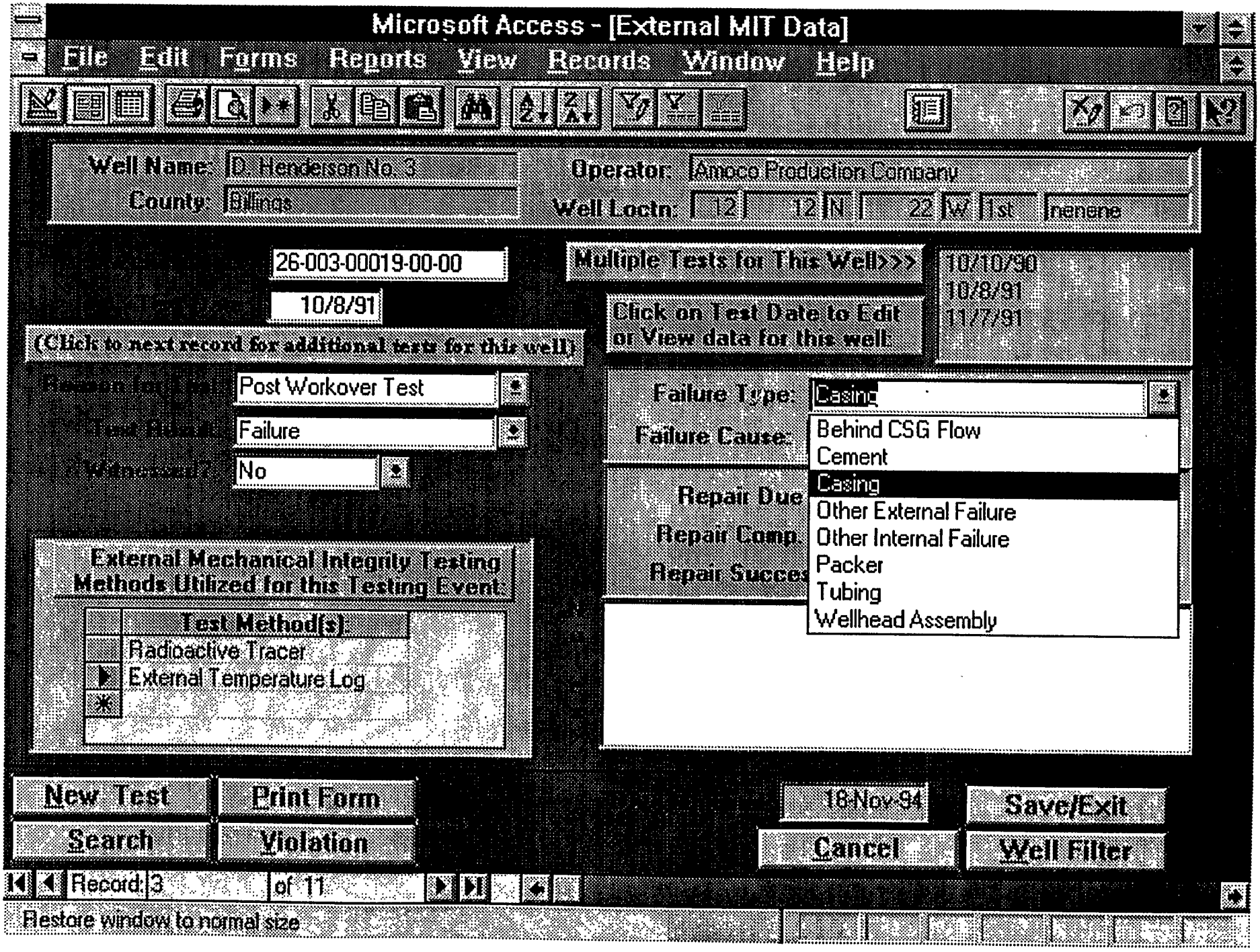

RBDMS - [RBDMS – COMPANY]
File Edit Forms Reports View Records Window Help
FIND COMPANY
Enter Selection Criteria and Press Enter
Company Number:
DOE Number:
Company Name:
Company | First | CITY | CONTACT | Phone
Amerada Hess Corporation | | Keene | Allen |
Amoco Production Company | | Riverton | Wiggs | (307) 857-22
Amoco Production Company | | Denver | Hamrick | (303) 830-51
Amoco Production Company | The | Powell | Kobbe | 307-909-9090
Chevron U.S.A., Inc. | | Vernal | Conley | 8012237678
Chevron U.S.A., Inc. | | Denver | Thomas | (303)930-386
Chevron U.S.A., Inc. | | Evanston | Dash | 307 783-3614
Conoco Inc. | | Casper | Brown | (307) 261-73
Conoco, Inc. | | Casper | Brown | 307 261 7312
1/25/95
Rpt?
1/1/90
City St Zip:
County:
Phone:
Mr. R. E. Carter 307
ANPROD 1/1/93 12/30/94 $400.00 1/1/93
$0.00
Record: 1 of 2
NEW SAVE FIND DELETE EXIT
Record: 1 of 19
Enter Company Name (or portion) Click Arrow to Display List OR press ENTER
NUM

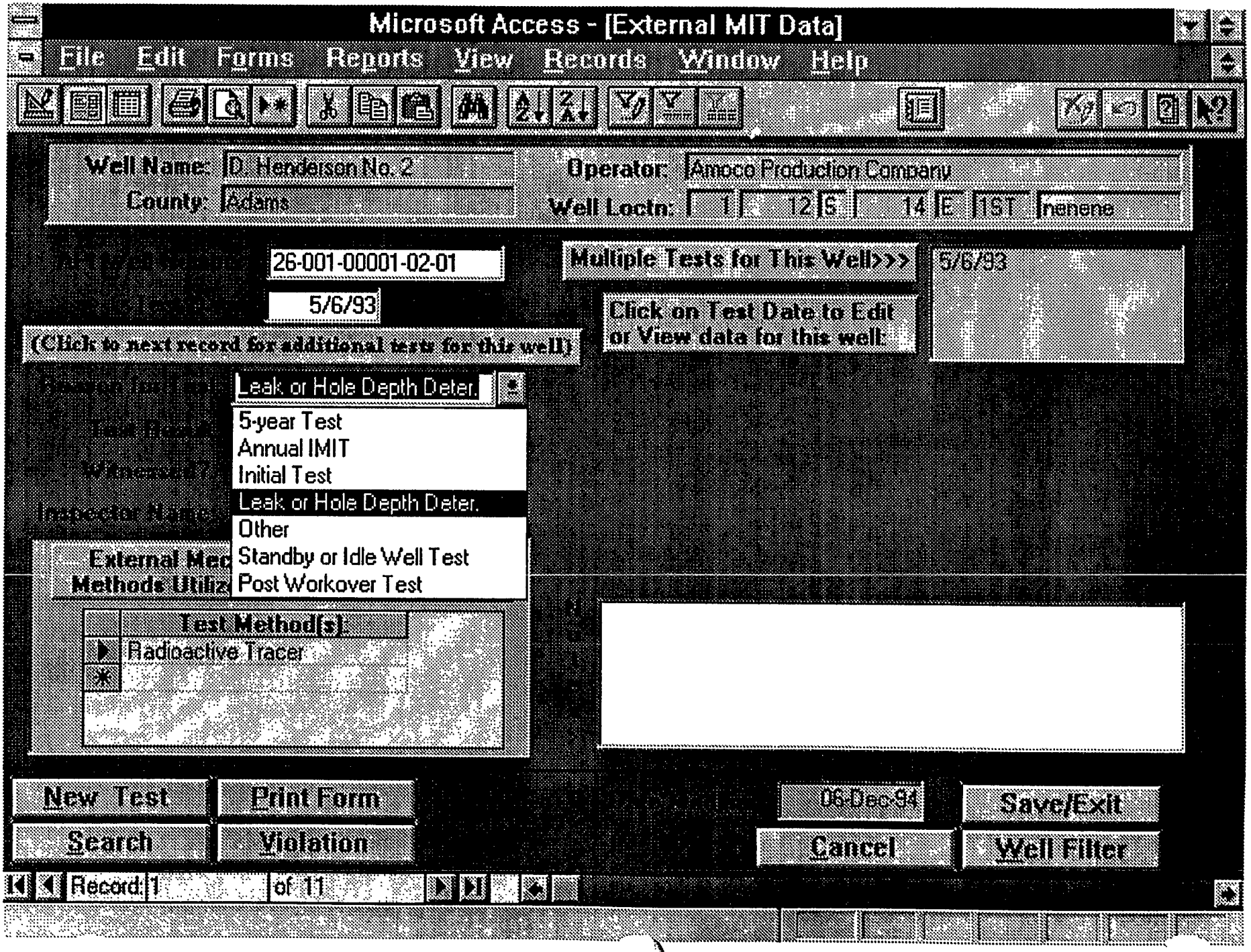

Microsoft Access - [Compliance Information]
File Edit Forms Reports View Records Window Help
ID: 723 API Well No: 26-001-00001-02-01
General Compliance Information
Summary Information
Dt Viol: 2/2/94
Order No: 9400012
Doc No: 9400012
Date
Notification Type
Notification: 12/14/93 Notice of Violation
Date
Type of Action
Enf. Action: 1/10/94 Admin. Order-Other
Schedule
Required
Achieved
Compliance: Yes 4/1/94
SNC: Yes SNC Method: Unresolved Violation
Penalty Data
Assessed
Collected
Date Penalty: 2/2/94
Amt Penalty: $500.00
Appeal Dates
Filed
Canceled
Affirmed
Date:
Violation Type(s) Identified
Casing/Cementing
Falsification
Financial Responsibility
Mechanical Integrity
Record: 1 of 6
Type of CA
Cost of CA
Cementing $4,000.00
Other Corrective Action $1,500.00
Record: 1 of 2
This area can be used to put down notes regarding the non-compiance record or related records, perhaps regarding the same operator. Information on the well or lease, including operator name and well location is found by pressing the "SUMMARY INFORMATION"
New Viol.
Print Form
Search
23-Dec-94
Save/Exit
Cancel
Well Filter
Record: 1 of 44
Date Penalty Collected

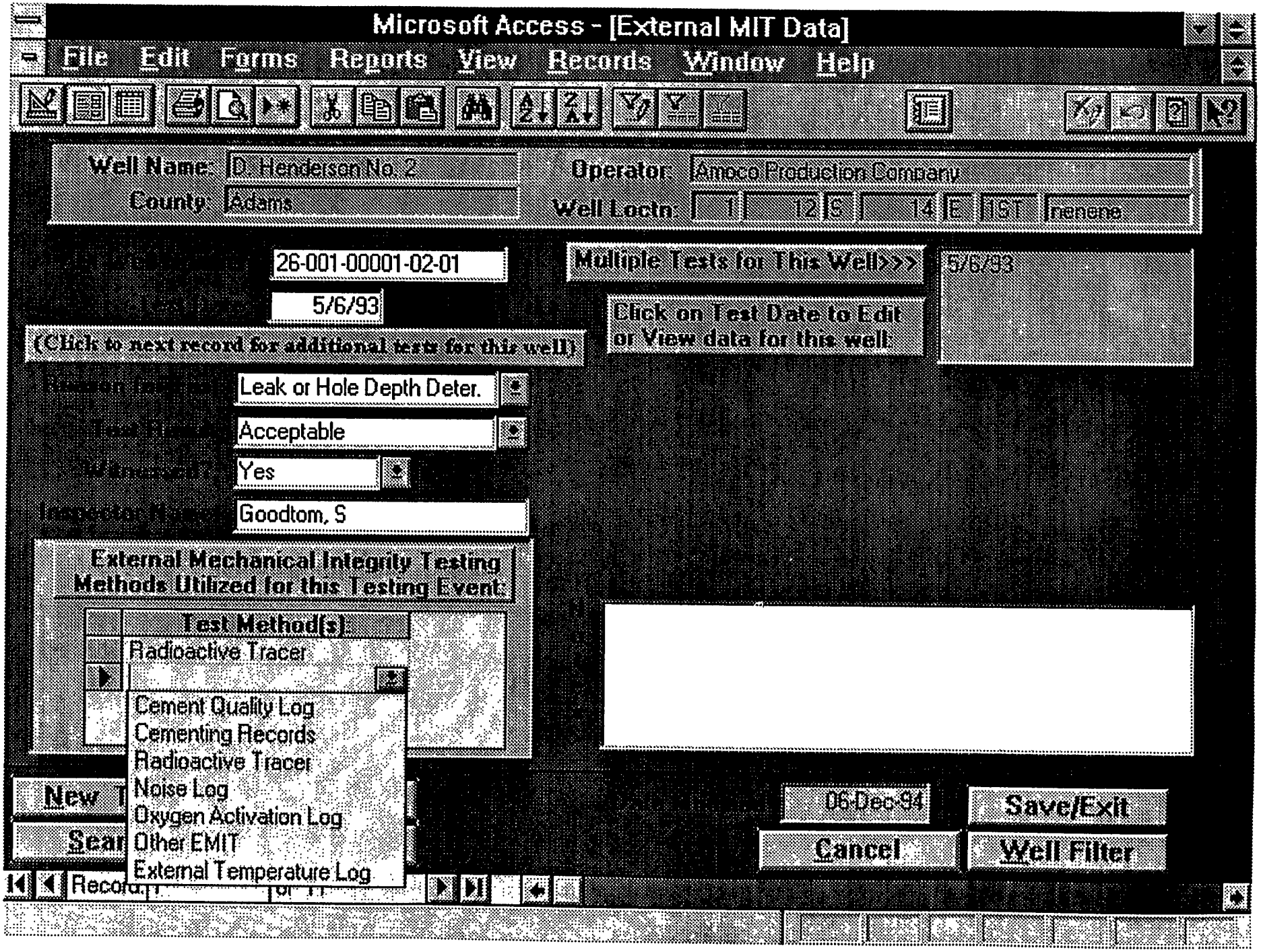

Microsoft Access - [Compliance Information]
File Edit Forms Reports View Records Window Help
ID: 723 API Well No: 26-001-00001-02-01
Appeal Dates Filed Canceled Affirmed
Date:
Well Information
API #: 26-001-00001-02-01
Well Name: D. Henderson No. 2
Lease: 0
Operator Number: 1000.01
Field Number: 100001
Operator: Amoco Production Company
County: Adams
Well Loctn: 1 12 S 14 E 1ST nenene
Exit
Schedule Required Achieved
Compliance: Yes 4/1/94
SNC: Yes SNC Method: Unresolved Violation
Penalty Data Assessed Collected
Date Penalty: 2/2/94
Amt Penalty: $500.00
Cementing $4,000.00
Other Corrective Action $1,500.00
Record: 1 of 2
This area can be used to put down notes regarding the non-compliance record or related records, perhaps regarding the same operator. Information on the well or lease, including operator name and well location is found by pressing the "SUMMARY INFORMATION"
New Viol.
Print Form
23-Dec-94
Save/Exit
Search
Cancel
Well Filter
Record: 1 of 44
Form View

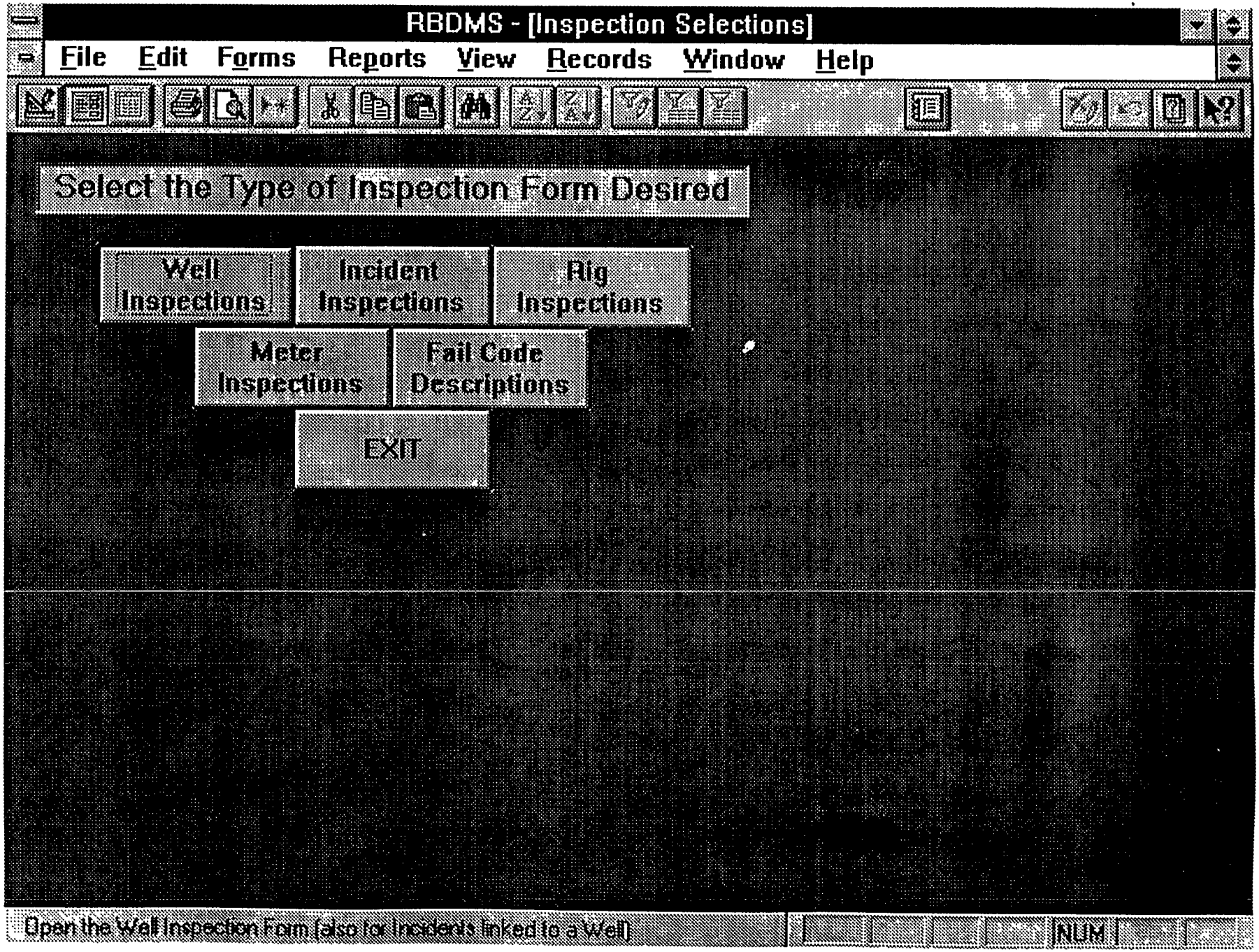

RBDMS - [Compliance Information]
File Edit Forms Reports View Records Window Help
Compliance Selection and Sort Criteria
Help
User: Admin
Field Name
Comparison
Criteria
And/Or
AND
API Well Number
Operator Name
County Number
Date Compliance Required
Date Enforcement
Date Notification
Date Violation
Enforcement Type
Field Number
Lease Number
Type Notification
Well Type
OK
Cancel
ID:
Affirmed
General Compliance Information
Dt Viol
2/2/9
Notificat
Enf. Actio
Compli
SNC: Yes
Penalty Da
Date Pe
Amt Pa
New Viol.
Print Form
Search
25-Jan-95
Save/Exit
Cancel
Well Filter
Record: 48 of
Enter field name to use for selecting records or choose from list
NUM

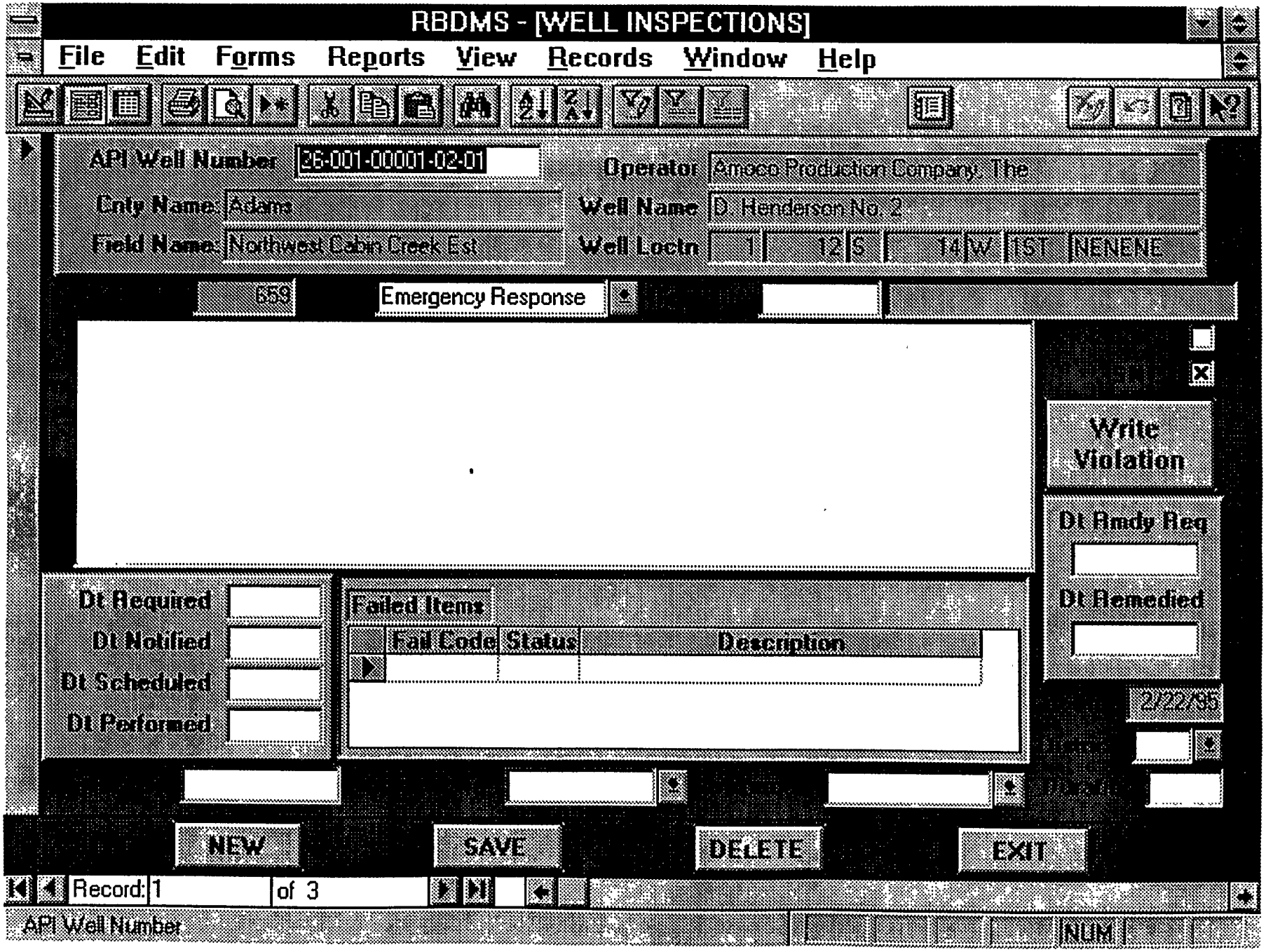

Microsoft Access - [External MIT Data]
File Edit Forms Reports View Records Window Help
Well Name: D. Henderson No. 3
Operator: Amoco Production Company
County: Billings
Well Loctn: 12 12 N 22 W 1st Inenene
26-003-00019-00-00
10/8/91
(Click to next record for additional tests for this well)
Multiple Tests for This Well>>>
Click on Test Date to Edit or View data for this well:
10/10/90
10/8/91
11/7/91
Post Workover Test
Failure
No
Failure Type: Casing
Failure Cause: Corrosion-Genera
Repair Due Date: 11/ 8/91
Repair Comp. Date: 11/5/91
Repair Successful?: Successful
External Mechanical Integrity Testing Methods Utilized for this Testing Event:
Test Method(s):
Radioactive Tracer
External Temperature Log
New Test
Print Form
Search
Violation
16-Nov-94
Save/Exit
Cancel
Well Filter
Record: 3 of 11
Restore window to normal size

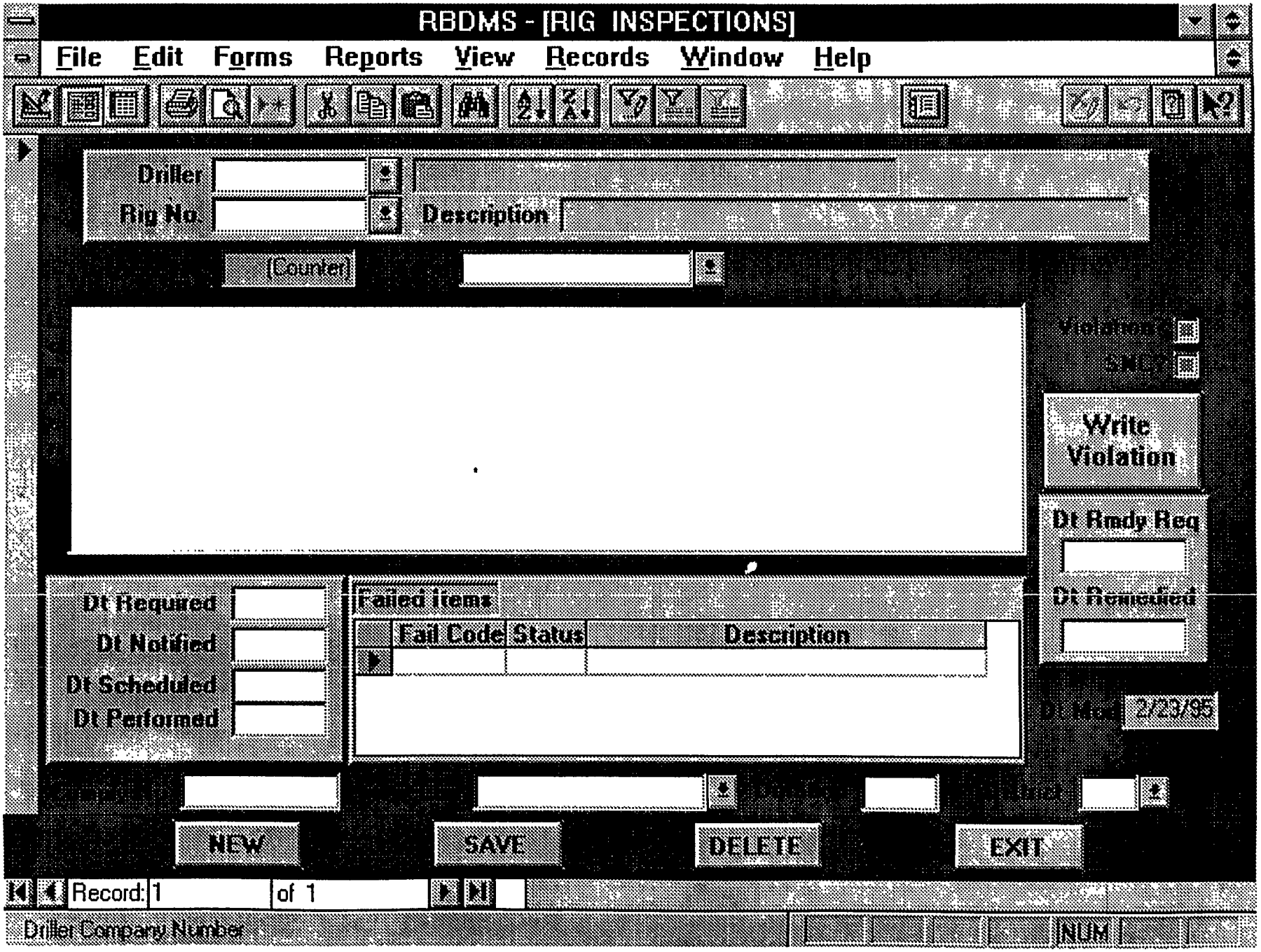

Microsoft Access - [External MIT Data]
File Edit Forms Reports View Records Window Help
Well Name: D. Henderson No. 3
Operator: Amoco Production Company
County: Billings
Well Loctn: 12 12 N 22 W 1st nenene
26-003-00019-00-00
10/8/91
(Click to next record for additional tests for this well)
Reason for Test: Post Workover Test
MIT Test Result: Failure
Witnessed?: No
Multiple Tests for This Well>>
10/10/90
10/8/91
11/7/91
Click on Test Date to Edit or View data for this well.
Failure Type: Casing
Failure Cause:
Behind CSG Flow
Cement
Casing
Other External Failure
Other Internal Failure
Packer
Tubing
Wellhead Assembly
Repair Due
Repair Comp.
Repair Succes
External Mechanical Integrity Testing Methods Utilized for this Testing Event.
Test Method(s):
Radioactive Tracer
External Temperature Log
New Test
Print Form
Search
Violation
16-Nov-94
Save/Exit
Cancel
Well Filter
Record: 3 of 11
Restore window to normal size

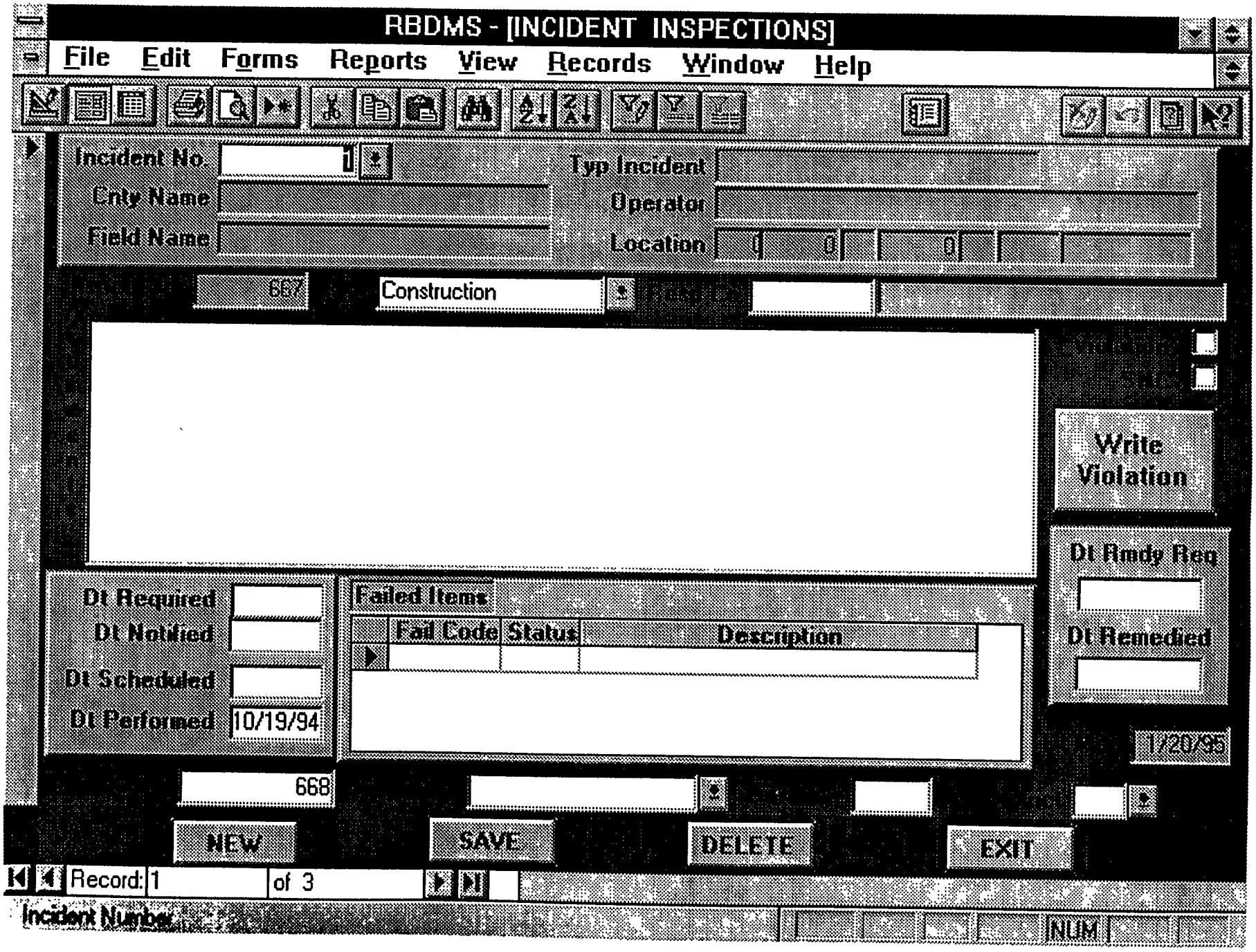

Microsoft Access - [External MIT Data]
File Edit Forms Reports View Records Window Help
Well Name: D. Henderson No. 2
Operator: Amoco Production Company
County: Adams
Well Loctn: 1 12 S 14 E 1ST nenene
26-001-00001-02-01
5/6/93
(Click to next record for additional tests for this well)
Multiple Tests for This Well>>>
Click on Test Date to Edit or View data for this well:
5/6/93
Leak or Hole Depth Deter.
5-year Test
Annual IMIT
Initial Test
Leak or Hole Depth Deter.
Other
Standby or Idle Well Test
Post Workover Test
Test Method(s)
Radioactive Tracer
New Test
Print Form
Search
Violation
06-Dec-94
Save/Exit
Cancel
Well Filter
Record: 1 of 11

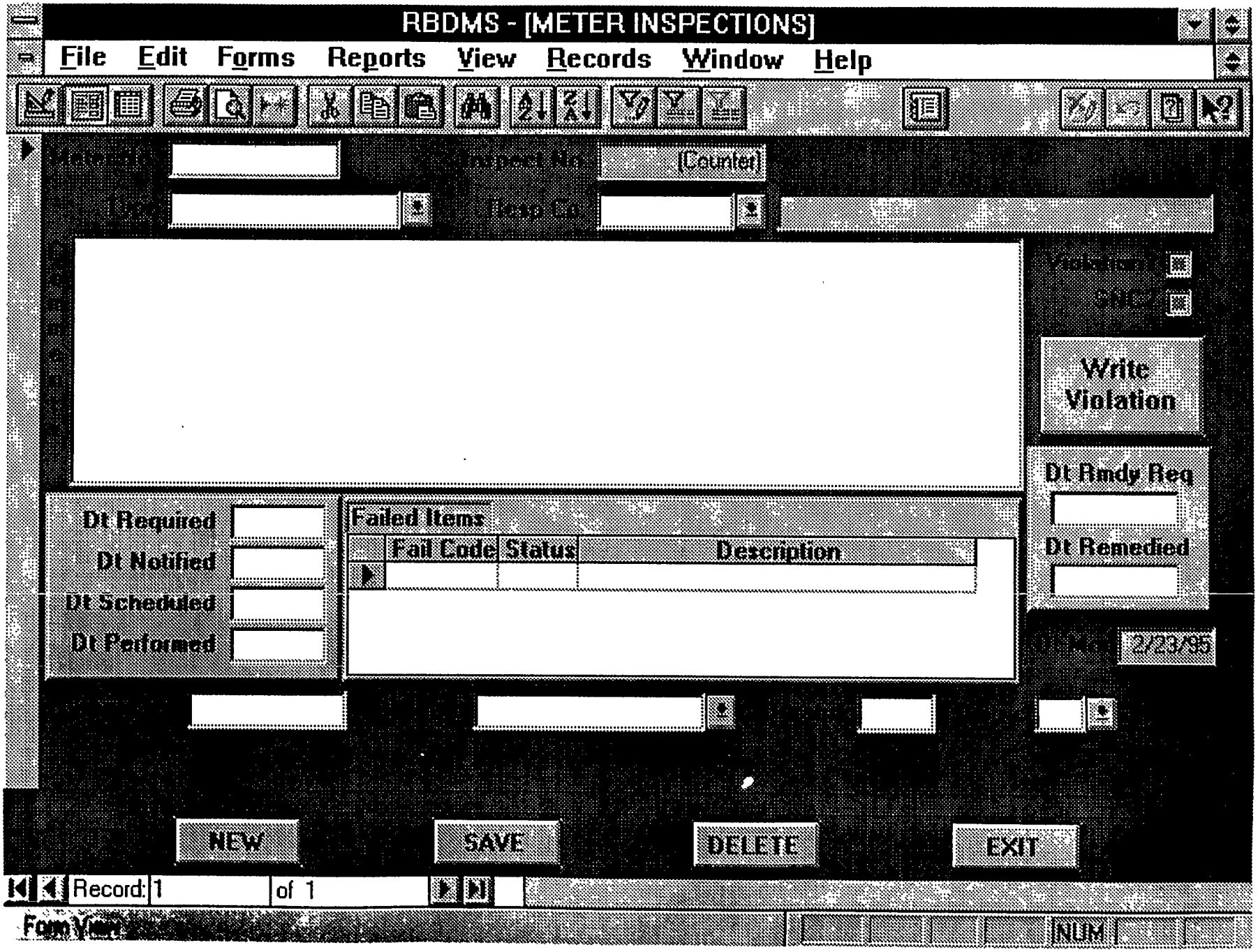

Microsoft Access - [External MIT Data]
File Edit Forms Reports View Records Window Help
Well Name: D Henderson No 2
Operator: Amoco Production Company
County: Adams
Well Loctn: 1 12 S 14 E 1ST nenene
26-001-00001-02-01
5/6/93
(Click to next record for additional tests for this well)
Multiple Tests for This Well>>>
5/6/93
Click on Test Date to Edit or View data for this well:
Leak or Hole Depth Deter.
Acceptable
Yes
Goodtom, S
External Mechanical Integrity Testing Methods Utilized for this Testing Event:
Test Method(s):
Radioactive Tracer
Cement Quality Log
Cementing Records
Radioactive Tracer
Noise Log
Oxygen Activation Log
Other EMIT
External Temperature Log
06-Dec-94
Save/Exit
Cancel
Well Filter

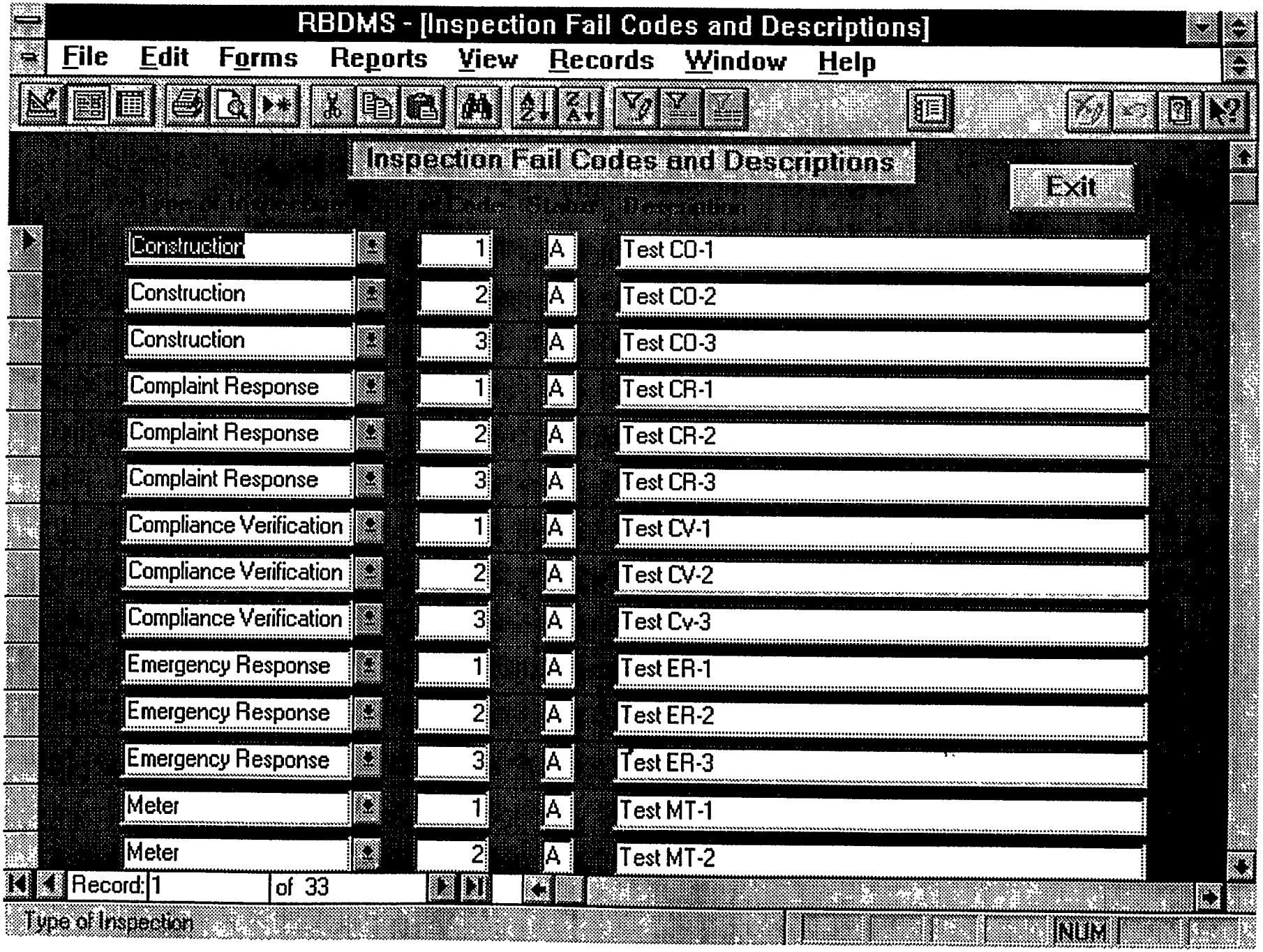

RBDMS - [Inspection Selections]
File Edit Forms Reports View Records Window Help
Select the Type of Inspection Form Desired
Well Inspections
Incident Inspections
Rig Inspections
Meter Inspections
Fail Code Descriptions
EXIT
Open the Well Inspection Form (also for Incidents linked to a Well)
NUM

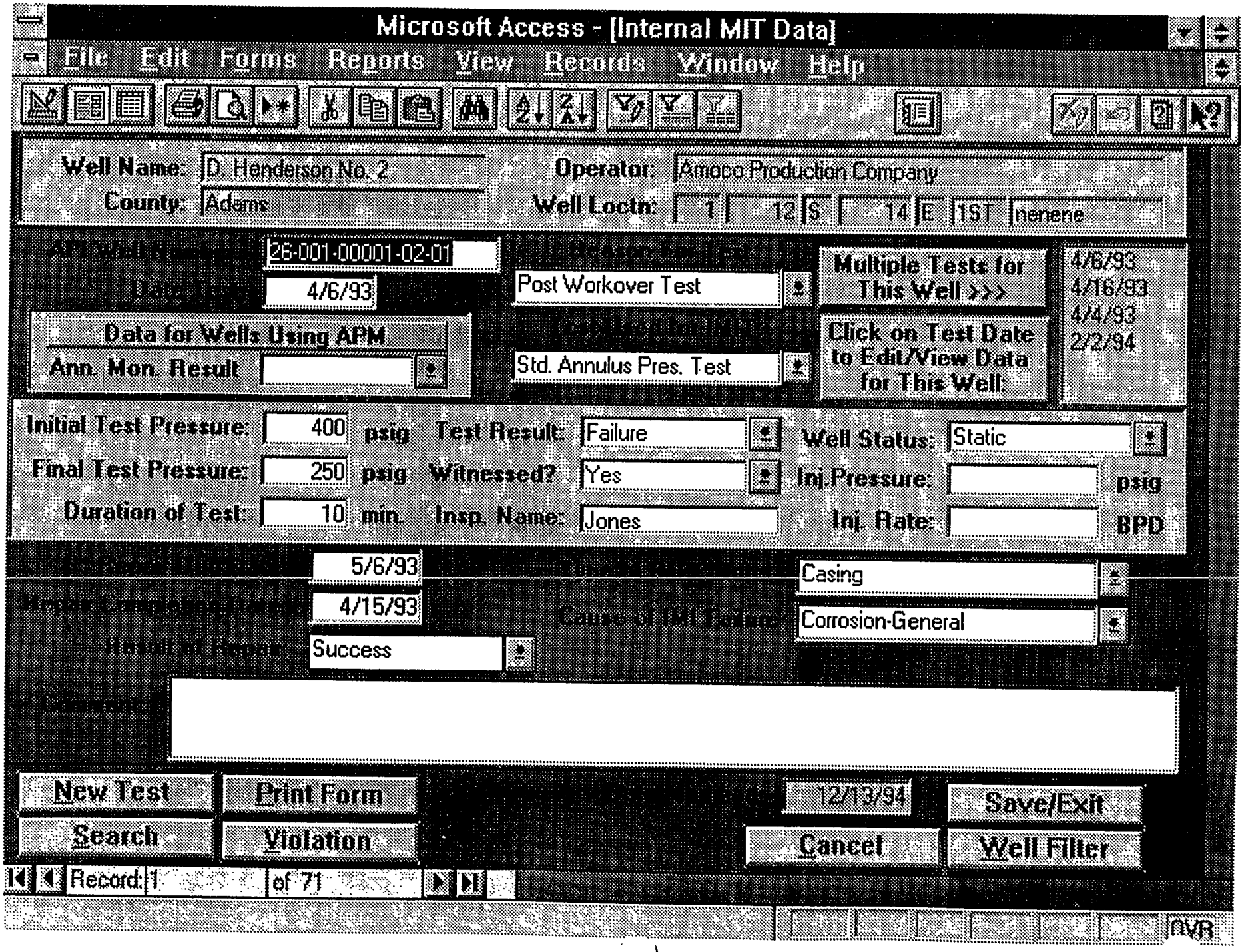

RBDMS - [WELL INSPECTIONS]
File Edit Forms Reports View Records Window Help
API Well Number 26-001-00001-02-01
Operator Amoco Production Company, The
Cnty Name: Adams
Well Name D. Henderson No. 2
Field Name: Northwest Cabin Creek Est
Well Loctn 1 12 S 14 W 1ST NENENE
659
Emergency Response
Write Violation
Dt Amdy Req
Dt Remedied
Dt Required
Dt Notified
Dt Scheduled
Dt Performed
Failed Items
Fail Code
Status
Description
2/22/95
NEW
SAVE
DELETE
EXIT
Record: 1 of 3
API Well Number
NUM

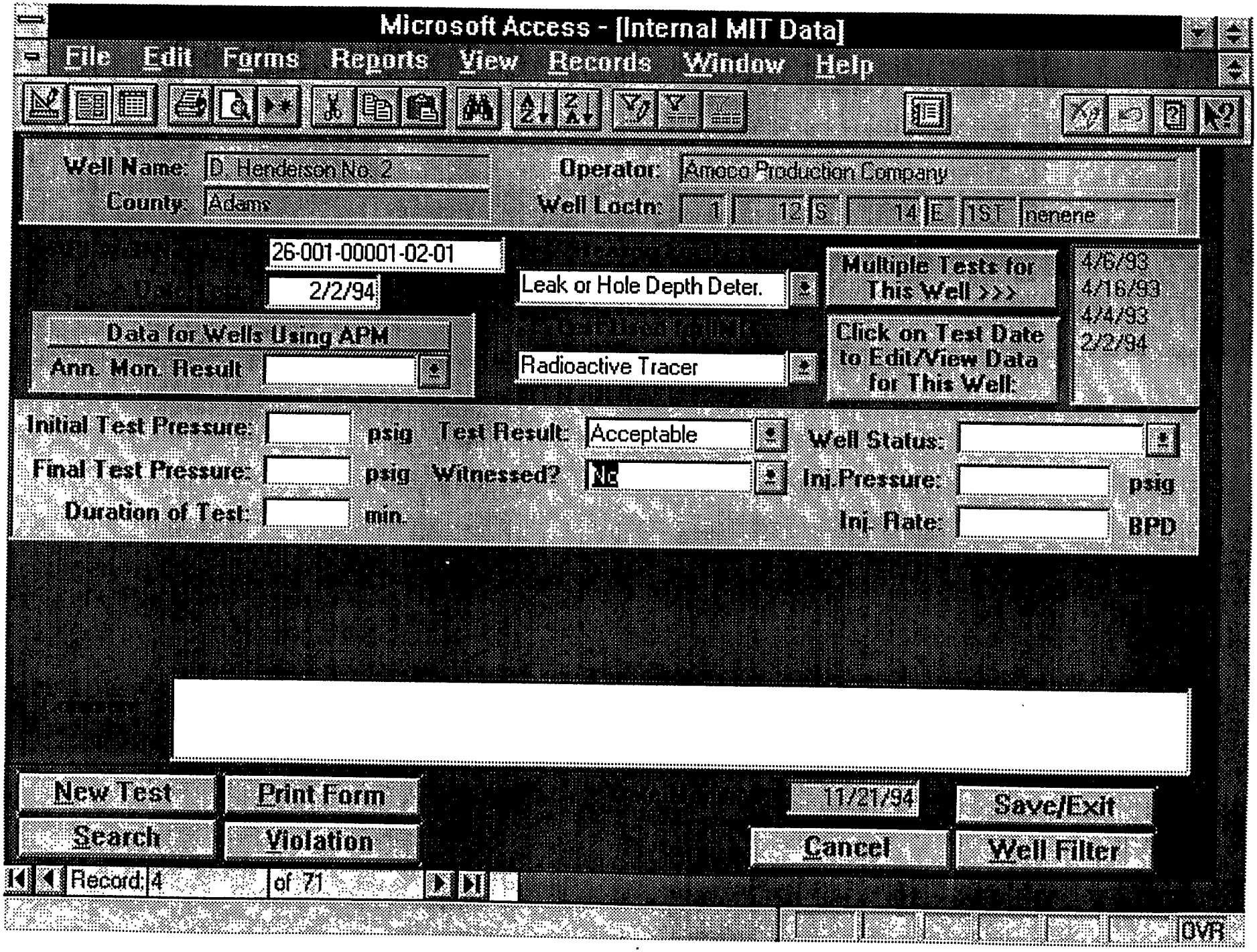

RBDMS - [RIG INSPECTIONS]
File Edit Forms Reports View Records Window Help
Driller
Rig No.
Description
(Counter)
Violation
SNC
Write Violation
Dt Rmdy Req
Dt Required
Dt Notified
Dt Scheduled
Dt Performed
Failed Items
Fail Code
Status
Description
Dt Rmdy Req
2/23/95
NEW
SAVE
DELETE
EXIT
Record: 1 of 1
Driller Company Number
NUM

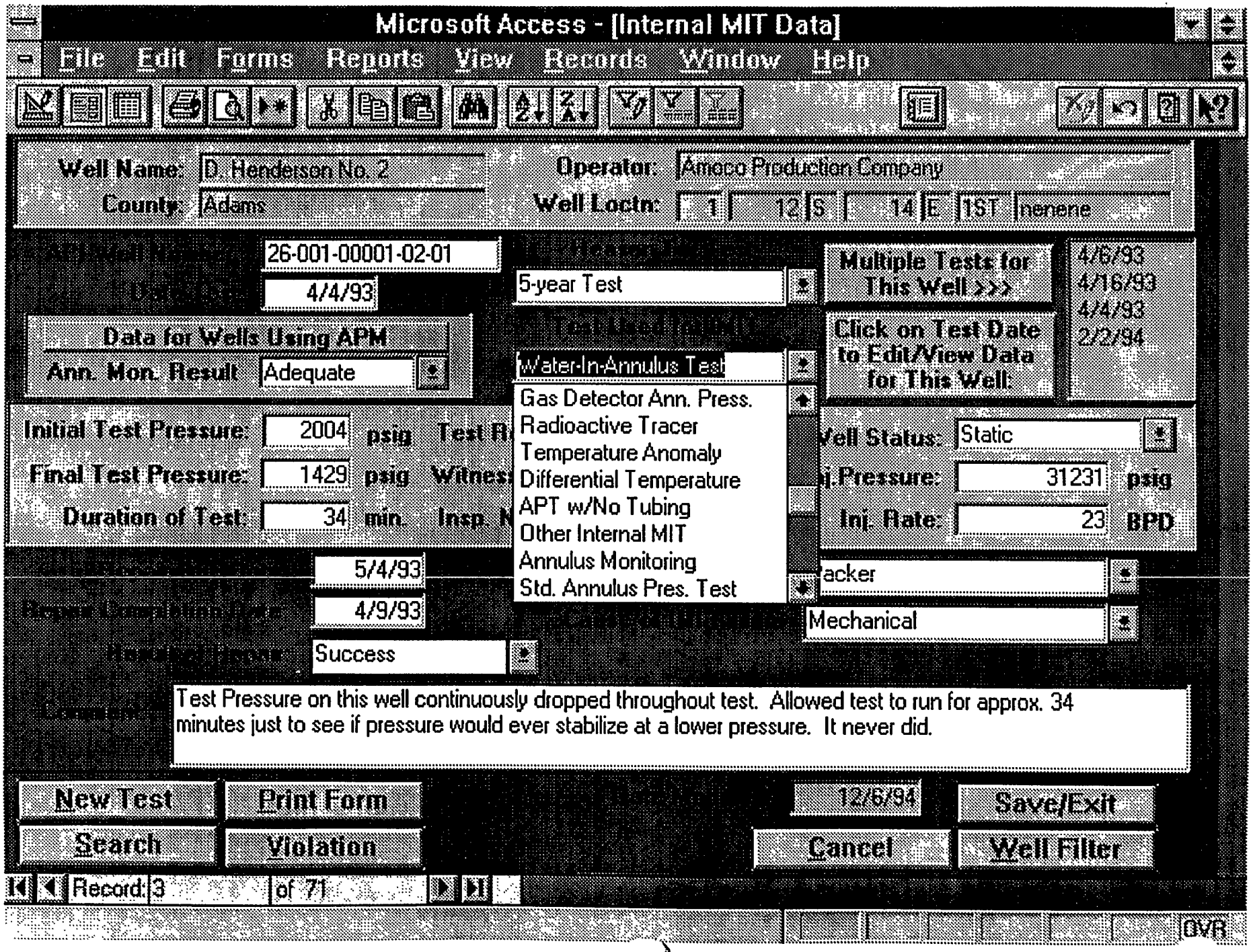

RBDMS - [INCIDENT INSPECTIONS]
File Edit Forms Reports View Records Window Help
Incident No.
Typ Incident
Cnty Name
Operator
Field Name
Location
667
Construction
Write Violation
Dt Required
Dt Notified
Dt Scheduled
Dt Performed
10/19/94
Failed Items
Fail Code
Status
Description
Dt Rmdy Req
Dt Remedied
1/20/95
668
NEW
SAVE
DELETE
EXIT
Record: 1
of 3
Incident Number
NUM

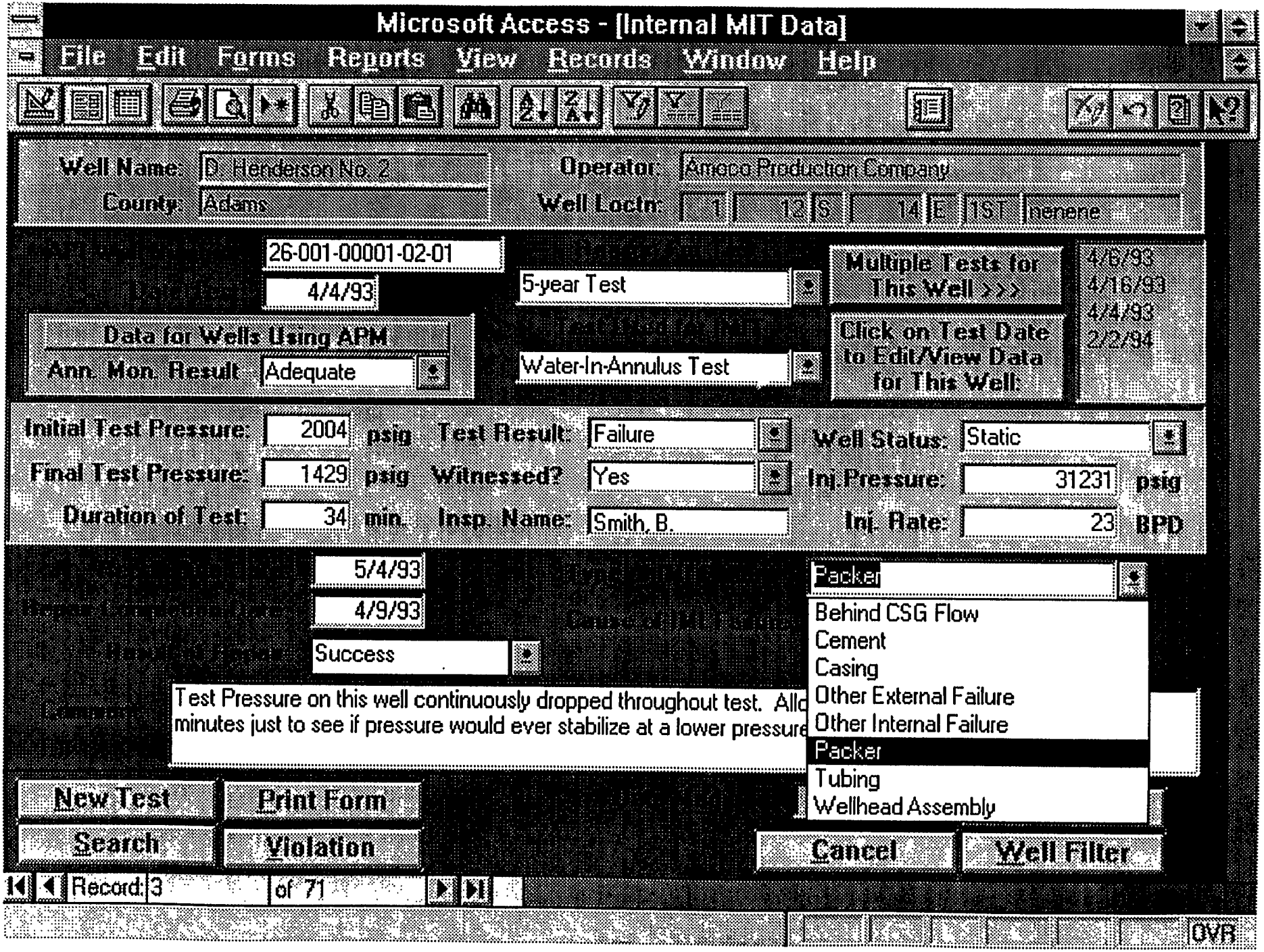

RBDMS - [METER INSPECTIONS]
File Edit Forms Reports View Records Window Help
[Counter]
Write Violation
Dt Required
Dt Notified
Dt Scheduled
Dt Performed
Failed Items
Fail Code
Status
Description
Dt Rmdy Req
Dt Remedied
2/23/95
NEW
SAVE
DELETE
EXIT
Record: 1
of 1
NUM

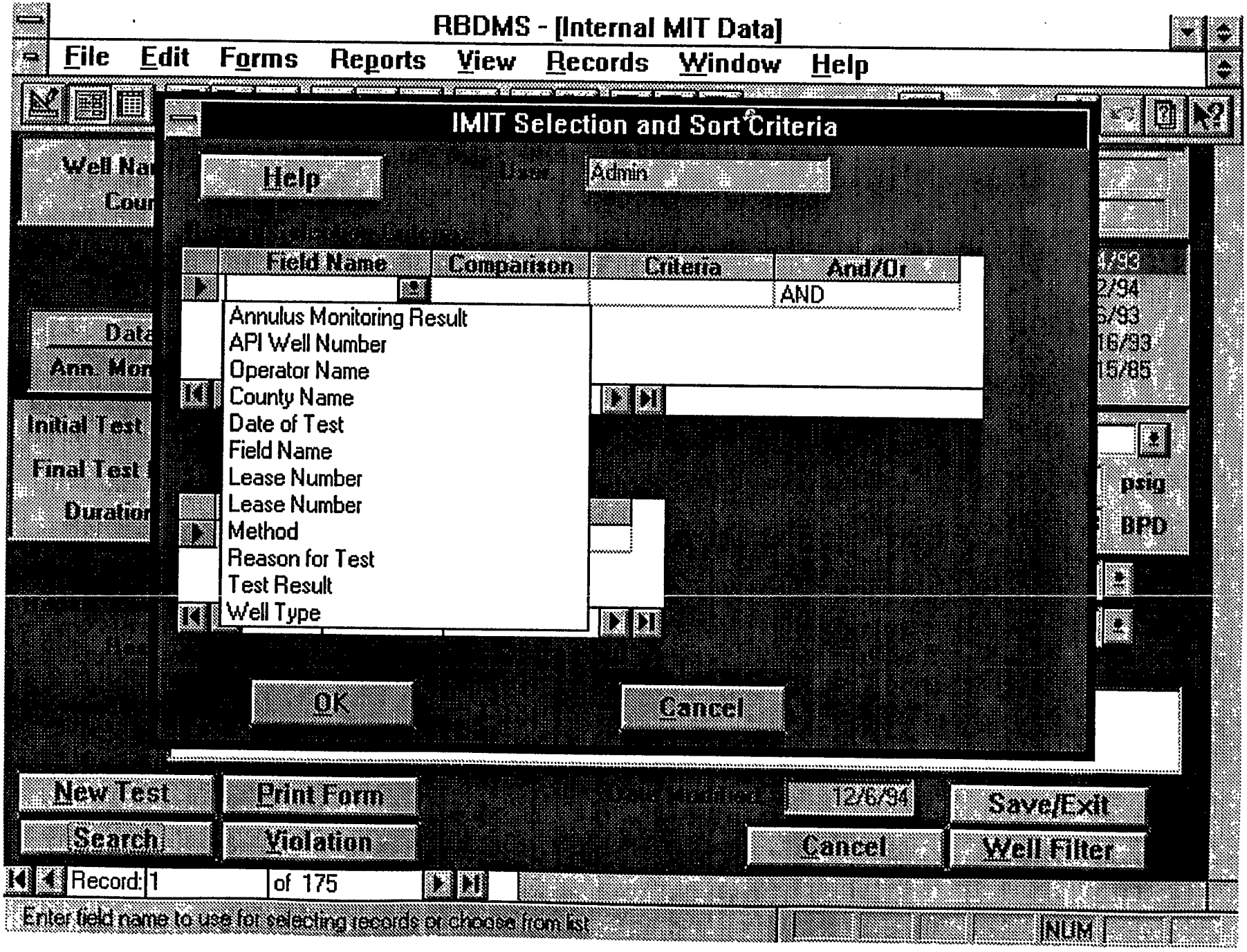

RBDMS - [Inspection Fail Codes and Descriptions]
File Edit Forms Reports View Records Window Help
Inspection Fail Codes and Descriptions
Exit
Construction 1 A Test CO-1
Construction 2 A Test CO-2
Construction 3 A Test CO-3
Complaint Response 1 A Test CR-1
Complaint Response 2 A Test CR-2
Complaint Response 3 A Test CR-3
Compliance Verification 1 A Test CV-1
Compliance Verification 2 A Test CV-2
Compliance Verification 3 A Test Cv-3
Emergency Response 1 A Test ER-1
Emergency Response 2 A Test ER-2
Emergency Response 3 A Test ER-3
Meter 1 A Test MT-1
Meter 2 A Test MT-2
Record: 1 of 33
Type of Inspection
NUM

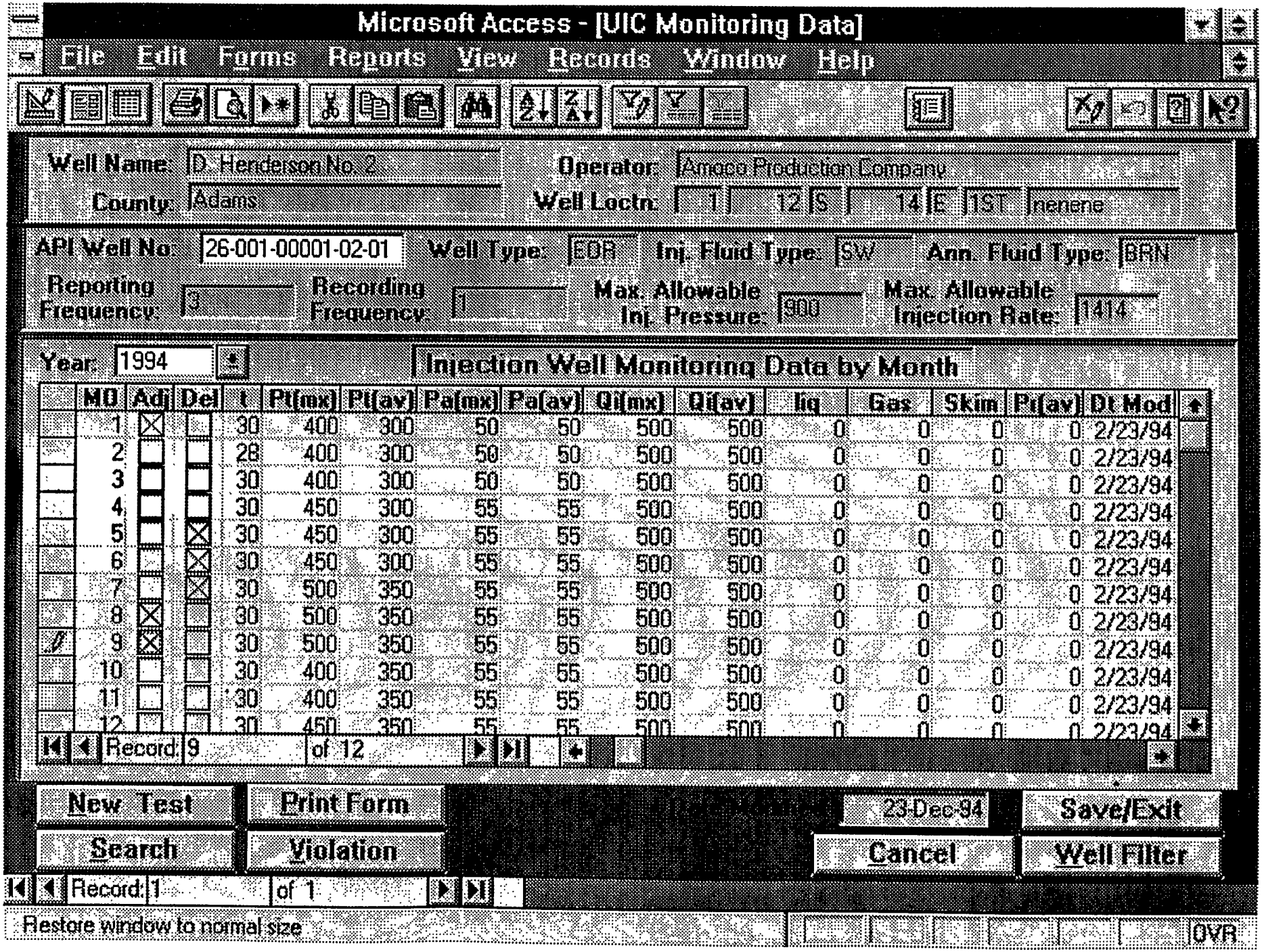

Microsoft Access - [Internal MIT Data]
File Edit Forms Reports View Records Window Help
Well Name: D. Henderson No. 2
Operator: Amoco Production Company
County: Adams
Well Loctn: 1 12 S 14 E 1ST nenene
26-001-00001-02-01
Date Test: 4/6/93
Post Workover Test
Multiple Tests for This Well >>
4/6/93
4/16/93
4/4/93
2/2/94
Data for Wells Using APM
Ann. Mon. Result
Std. Annulus Pres. Test
Click on Test Date to Edit/View Data for This Well.
Initial Test Pressure: 400 psig
Final Test Pressure: 250 psig
Duration of Test: 10 min.
Test Result: Failure
Witnessed? Yes
Insp. Name: Jones
Well Status: Static
Inj.Pressure: psig
Inj. Rate: BPD
5/6/93
4/15/93
Result of Repair: Success
Casing
Corrosion-General
New Test
Print Form
Search
Violation
12/13/94
Save/Exit
Cancel
Well Filter
Record: 1 of 71
NVR

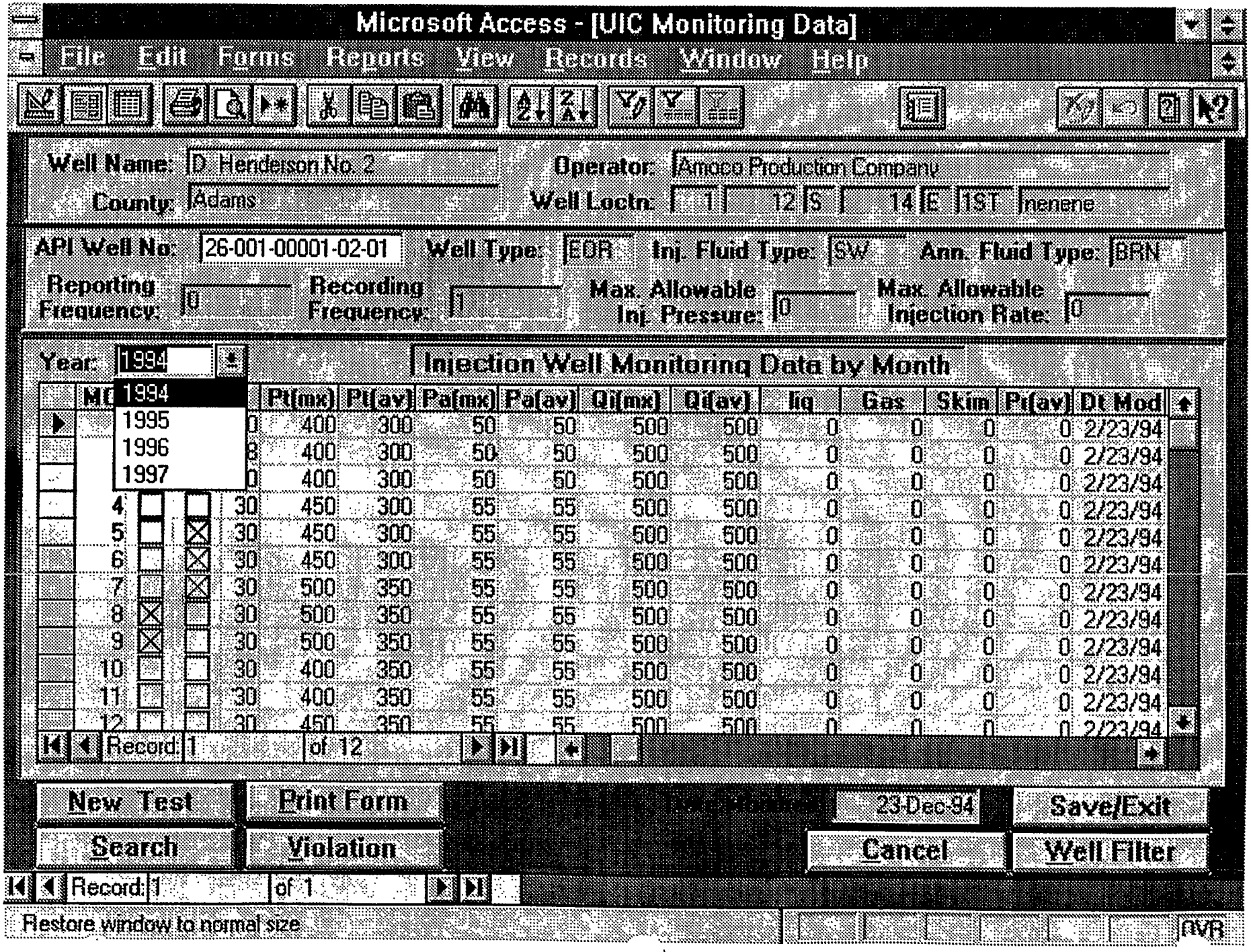

Microsoft Access - [Internal MIT Data]
File Edit Forms Reports View Records Window Help
Well Name: D. Henderson No. 2
Operator: Amoco Production Company
County: Adams
Well Loctn: T 12 S R 14 E 1ST nenene
26-001-00001-02-01
2/2/94
Leak or Hole Depth Deter.
Multiple Tests for This Well >>>
4/6/93
4/16/93
4/4/93
2/2/94
Data for Wells Using APM
Ann. Mon. Result
Radioactive Tracer
Click on Test Date to Edit/View Data for This Well:
Initial Test Pressure: psig
Test Result: Acceptable
Well Status:
Final Test Pressure: psig
Witnessed? No
Inj.Pressure: psig
Duration of Test: min.
Inj. Rate: BPD
New Test
Print Form
11/21/94
Save/Exit
Search
Violation
Cancel
Well Filter
Record: 4 of 71
OVR

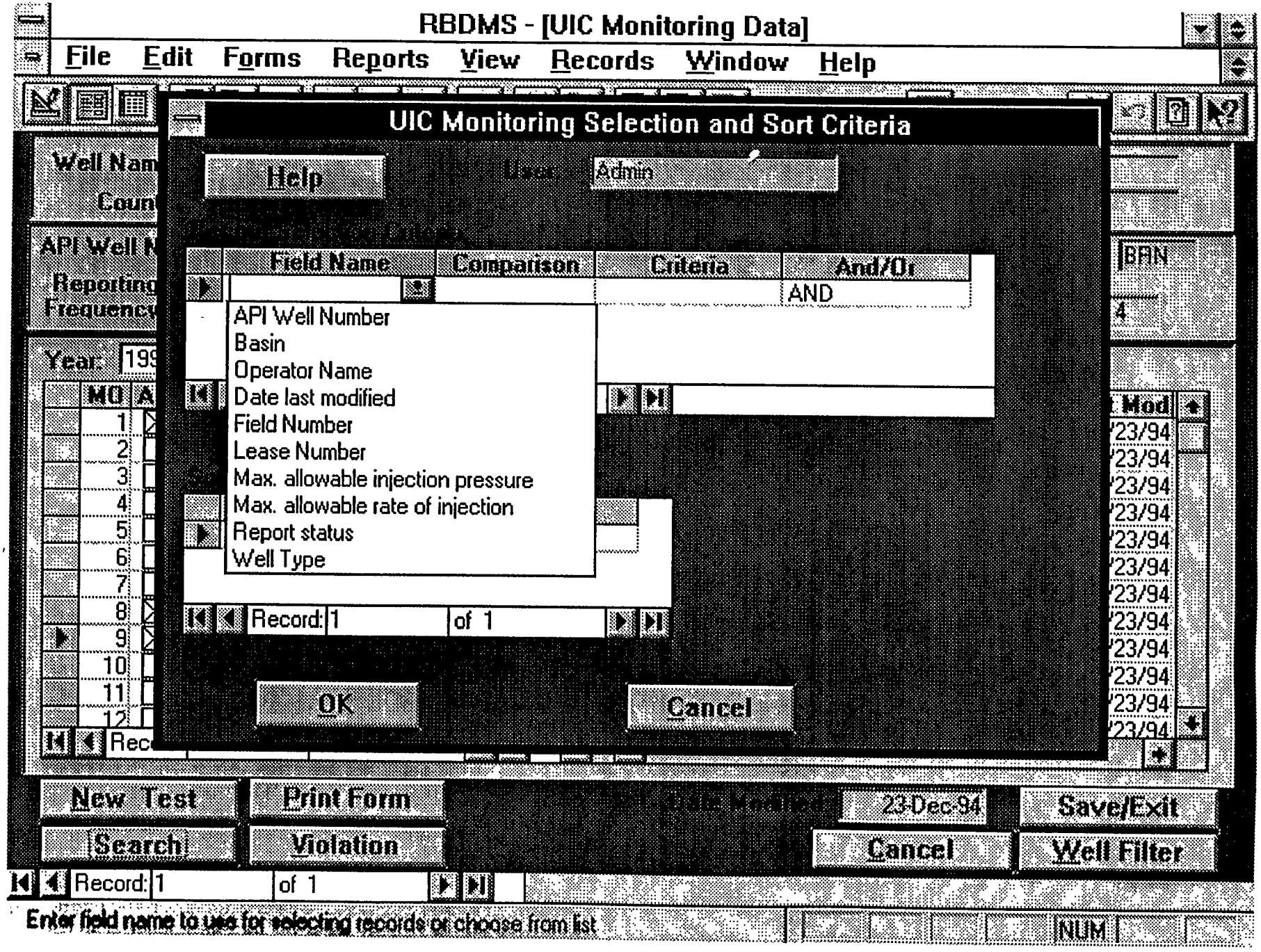

Microsoft Access - [Internal MIT Data]
File Edit Forms Reports View Records Window Help
Well Name: D. Henderson No. 2
Operator: Amoco Production Company
County: Adams
Well Loctn: 1 12 S 14 E 1ST nenene
26-001-00001-02-01
4/4/93
5-year Test
Multiple Tests for This Well >>>
4/6/93
4/16/93
4/4/93
2/2/94
Data for Wells Using APM
Ann. Mon. Result Adequate
Click on Test Date to Edit/View Data for This Well:
Water-In-Annulus Test
Gas Detector Ann. Press.
Radioactive Tracer
Temperature Anomaly
Differential Temperature
APT w/No Tubing
Other Internal MIT
Annulus Monitoring
Std. Annulus Pres. Test
Initial Test Pressure: 2004 psig
Final Test Pressure: 1429 psig
Duration of Test: 34 min.
Well Status: Static
Inj. Pressure: 31231 psig
Inj. Rate: 23 BPD
5/4/93
4/9/93
Success
acker
Mechanical
Test Pressure on this well continuously dropped throughout test. Allowed test to run for approx. 34 minutes just to see if pressure would ever stabilize at a lower pressure. It never did.
New Test
Print Form
12/6/94
Save/Exit
Search
Violation
Cancel
Well Filter
Record: 3 of 71
OVR

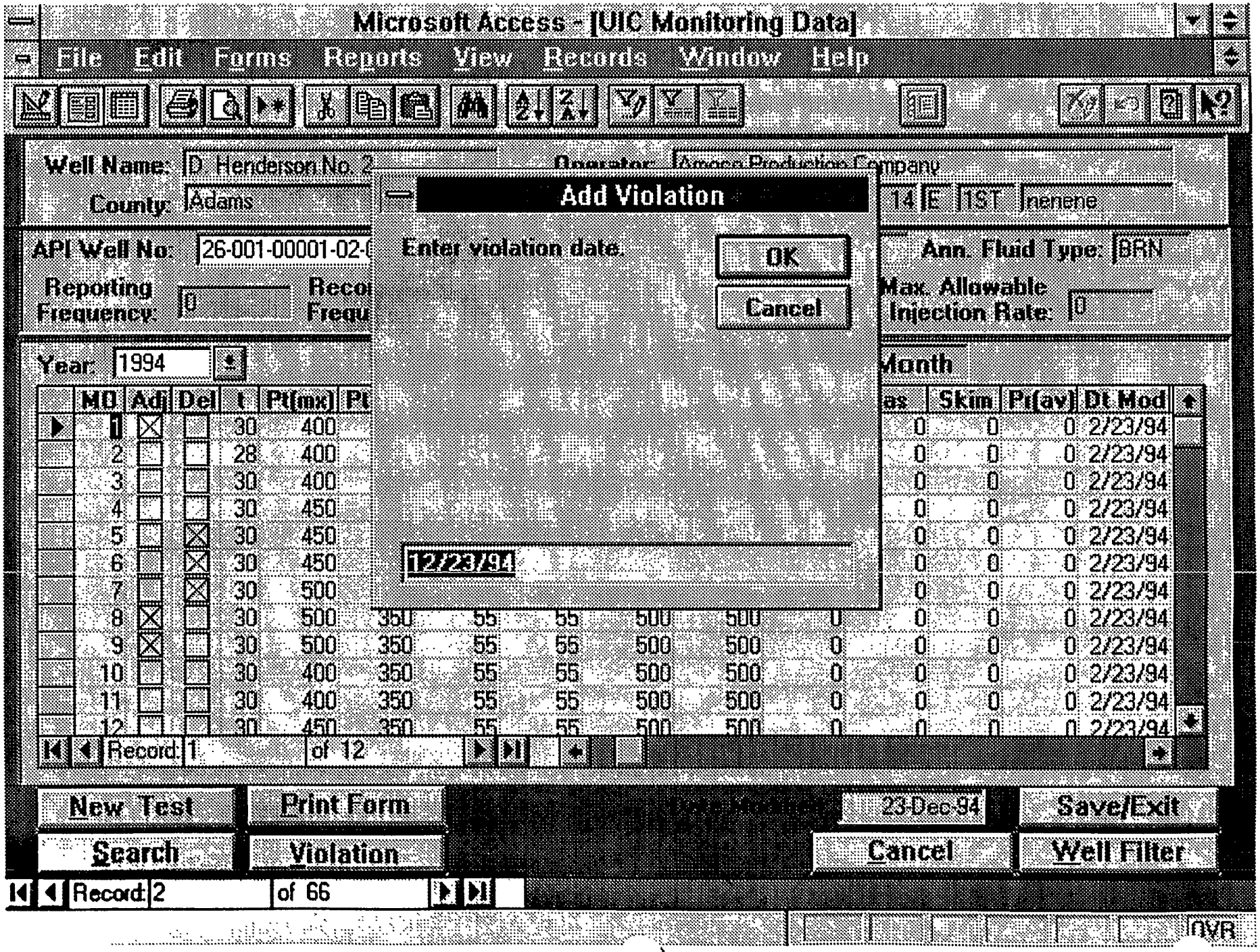

Microsoft Access - [Internal MIT Data]
File Edit Forms Reports View Records Window Help
Well Name: D. Henderson No. 2
Operator: Amoco Production Company
County: Adams
Well Loctn: 1 12 S 14 E 1ST nenene
26-001-00001-02-01
4/4/93
5-year Test
Multiple Tests for This Well >>>
4/6/93
4/16/93
4/4/93
2/2/94
Click on Test Date to Edit/View Data for This Well:
Data for Wells Using APM
Ann. Mon. Result Adequate
Water-In-Annulus Test
Initial Test Pressure: 2004 psig
Final Test Pressure: 1429 psig
Duration of Test: 34 min.
Test Result: Failure
Witnessed? Yes
Insp. Name: Smith, B.
Well Status: Static
Inj Pressure: 31231 psig
Inj. Rate: 23 BPD
5/4/93
4/9/93
Success
Packer
Behind CSG Flow
Cement
Casing
Other External Failure
Other Internal Failure
Packer
Tubing
Wellhead Assembly
Test Pressure on this well continuously dropped throughout test. Alld
minutes just to see if pressure would ever stabilize at a lower pressure
New Test
Print Form
Search
Violation
Cancel
Well Filter
Record: 3 of 71
OVR

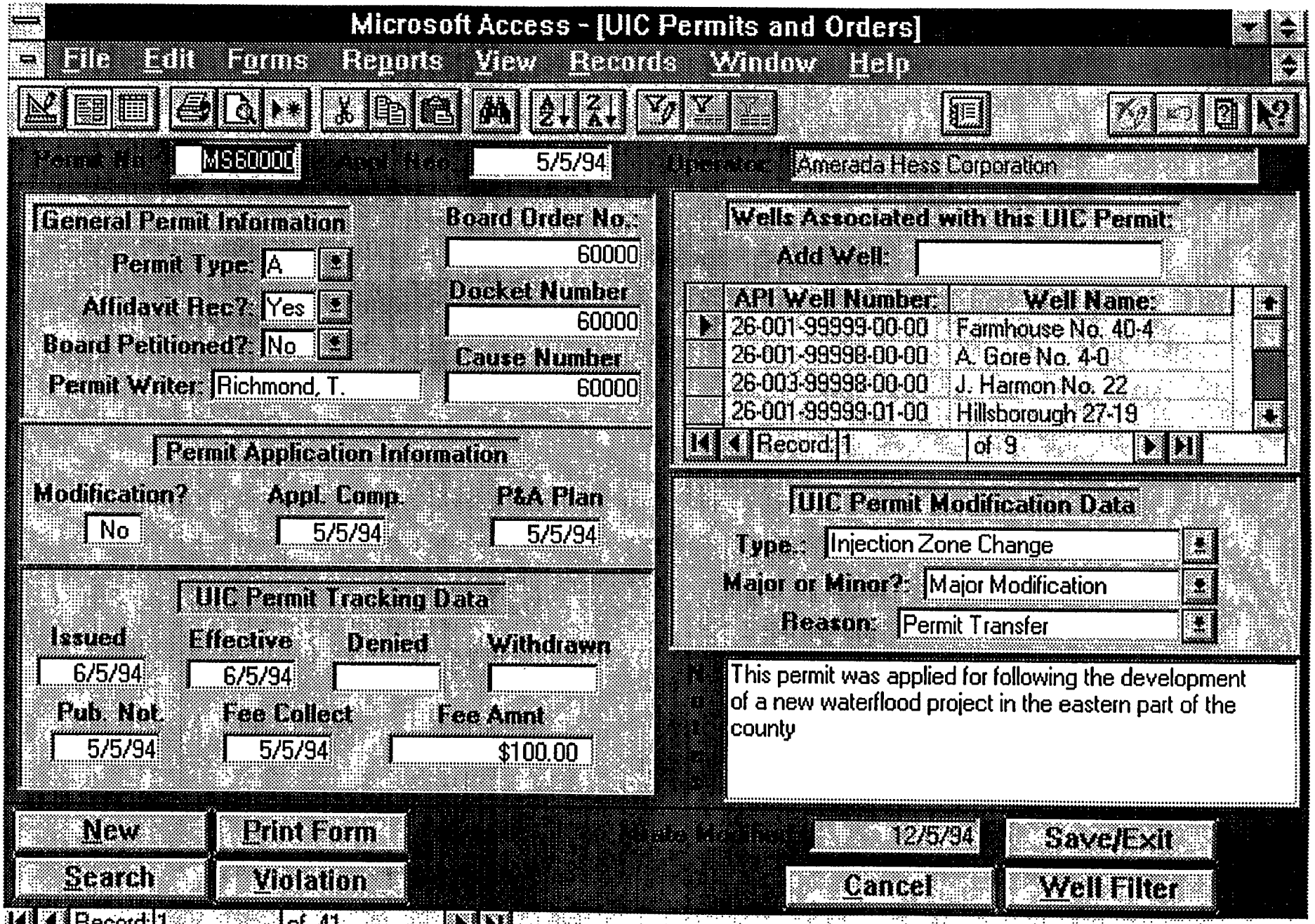

RBDMS - [Internal MIT Data]
File Edit Forms Reports View Records Window Help
IMIT Selection and Sort Criteria
Help
User: Admin
Field Name
Comparison
Criteria
And/Or
AND
Annulus Monitoring Result
API Well Number
Operator Name
County Name
Date of Test
Field Name
Lease Number
Lease Number
Method
Reason for Test
Test Result
Well Type
OK
Cancel
New Test
Print Form
12/6/94
Save/Exit
Search
Violation
Cancel
Well Filter
Record: 1
of 175
Enter field name to use for selecting records or choose from list
NUM

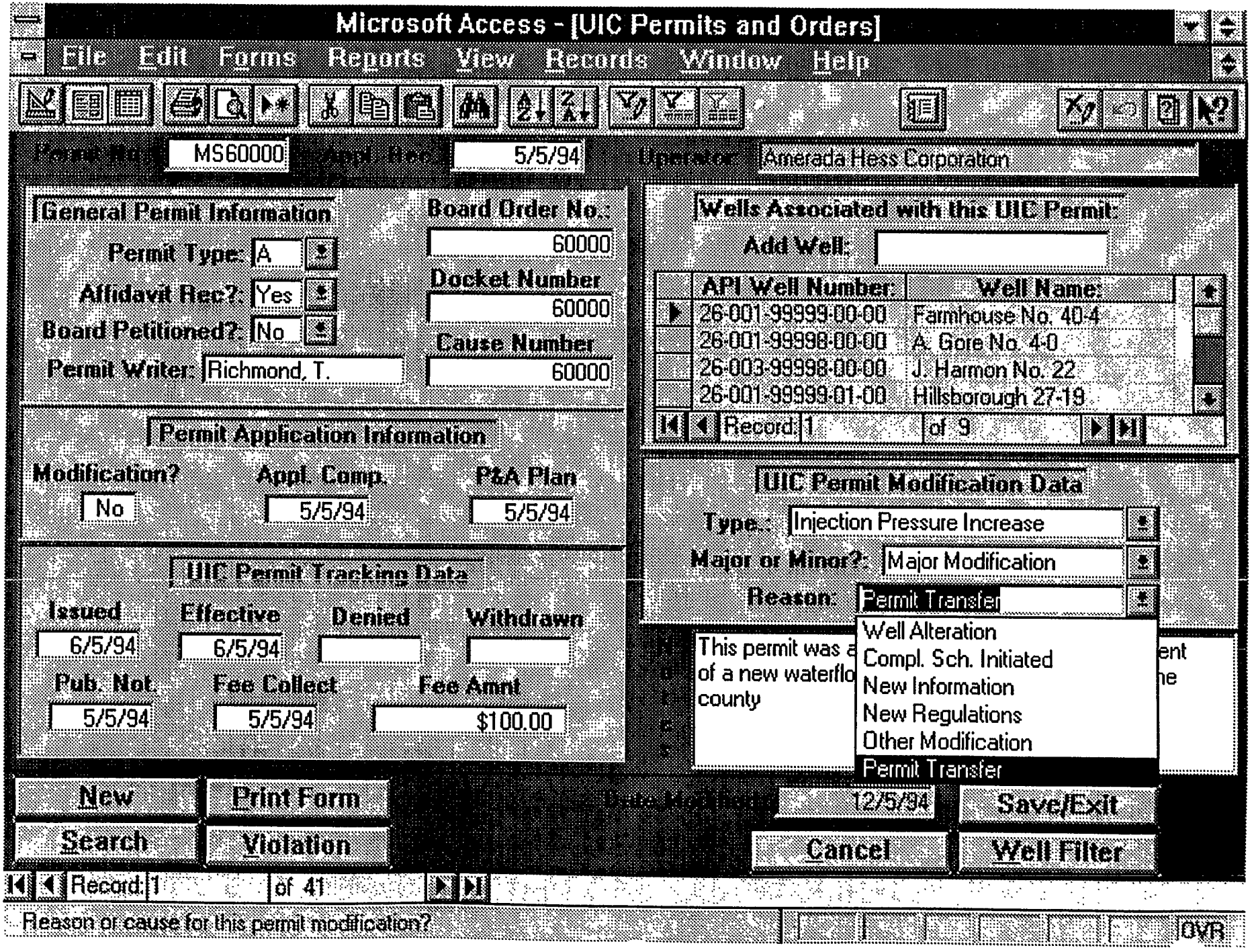

Microsoft Access - [UIC Monitoring Data]
File Edit Forms Reports View Records Window Help
Well Name: D. Henderson No. 2
Operator: Amoco Production Company
County: Adams
Well Loctn: T 2 S 14 E 1ST nenene
API Well No: 26-001-00001-02-01
Well Type: EOR
Inj. Fluid Type: SW
Ann. Fluid Type: BRN
Reporting Frequency: 3
Recording Frequency: 1
Max. Allowable Inj. Pressure: 900
Max. Allowable Injection Rate: 1414
Year: 1994
Injection Well Monitoring Data by Month
MO Adj Del t Pt(mx) Pt(av) Pa(mx) Pa(av) Qi(mx) Qi(av) liq Gas Skim Pt(av) Dt Mod
1 30 400 300 50 50 500 500 0 0 0 0 2/23/94
2 28 400 300 50 50 500 500 0 0 0 0 2/23/94
3 30 400 300 50 50 500 500 0 0 0 0 2/23/94
4 30 450 300 55 55 500 500 0 0 0 0 2/23/94
5 30 450 300 55 55 500 500 0 0 0 0 2/23/94
6 30 450 300 55 55 500 500 0 0 0 0 2/23/94
7 30 500 350 55 55 500 500 0 0 0 0 2/23/94
8 30 500 350 55 55 500 500 0 0 0 0 2/23/94
9 30 500 350 55 55 500 500 0 0 0 0 2/23/94
10 30 400 350 55 55 500 500 0 0 0 0 2/23/94
11 30 400 350 55 55 500 500 0 0 0 0 2/23/94
12 30 450 350 55 55 500 500 0 0 0 0 2/23/94
Record: 9 of 12
New Test
Print Form
23-Dec-94
Save/Exit
Search
Violation
Cancel
Well Filter
Record: 1 of 1
Restore window to normal size
OVR

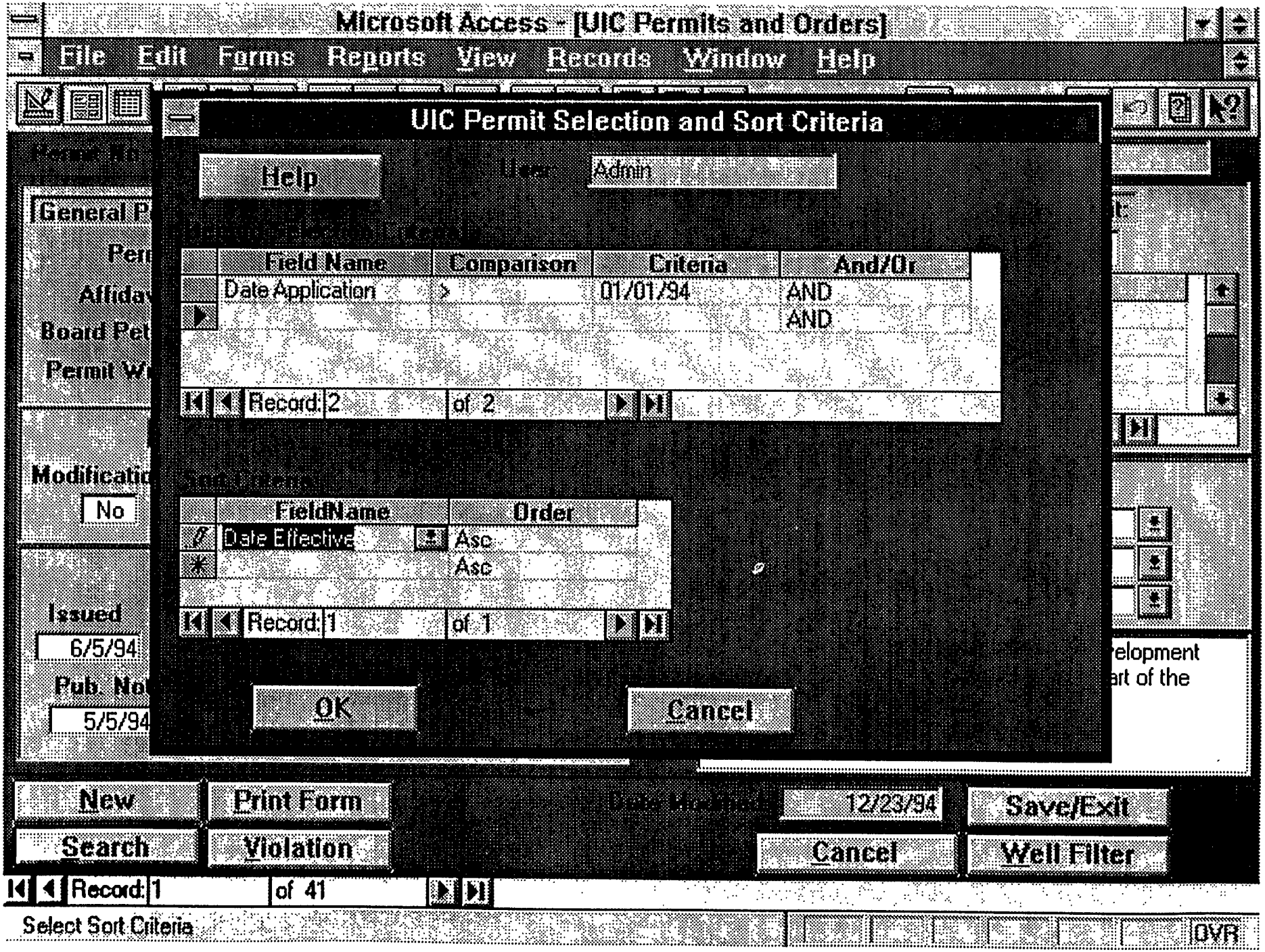

Microsoft Access - [UIC Monitoring Data]
File Edit Forms Reports View Records Window Help
Well Name: D. Henderson No. 2
Operator: Amoco Production Company
County: Adams
Well Locn: T 12 S 14 E 1ST nenene
API Well No: 26-001-00001-02-01
Well Type: EOR
Inj. Fluid Type: SW
Ann. Fluid Type: BRN
Reporting Frequency: 0
Recording Frequency: 1
Max. Allowable Inj. Pressure: 0
Max. Allowable Injection Rate: 0
Year: 1994
1994
1995
1996
1997
Injection Well Monitoring Data by Month
MO Pt(mx) Pt(av) Pa(mx) Pa(av) Qi(mx) Qi(av) liq Gas Skim Pr(av) Dt Mod
0 400 300 50 50 500 500 0 0 0 0 2/23/94
8 400 300 50 50 500 500 0 0 0 0 2/23/94
0 400 300 50 50 500 500 0 0 0 0 2/23/94
4 30 450 300 55 55 500 500 0 0 0 0 2/23/94
5 30 450 300 55 55 500 500 0 0 0 0 2/23/94
6 30 450 300 55 55 500 500 0 0 0 0 2/23/94
7 30 500 350 55 55 500 500 0 0 0 0 2/23/94
8 30 500 350 55 55 500 500 0 0 0 0 2/23/94
9 30 500 350 55 55 500 500 0 0 0 0 2/23/94
10 30 400 350 55 55 500 500 0 0 0 0 2/23/94
11 30 400 350 55 55 500 500 0 0 0 0 2/23/94
12 30 450 350 55 55 500 500 0 0 0 0 2/23/94
Record: 1 of 12
New Test
Print Form
23-Dec-94
Save/Exit
Search
Violation
Cancel
Well Filter
Record: 1 of 1
Restore window to normal size
NVR

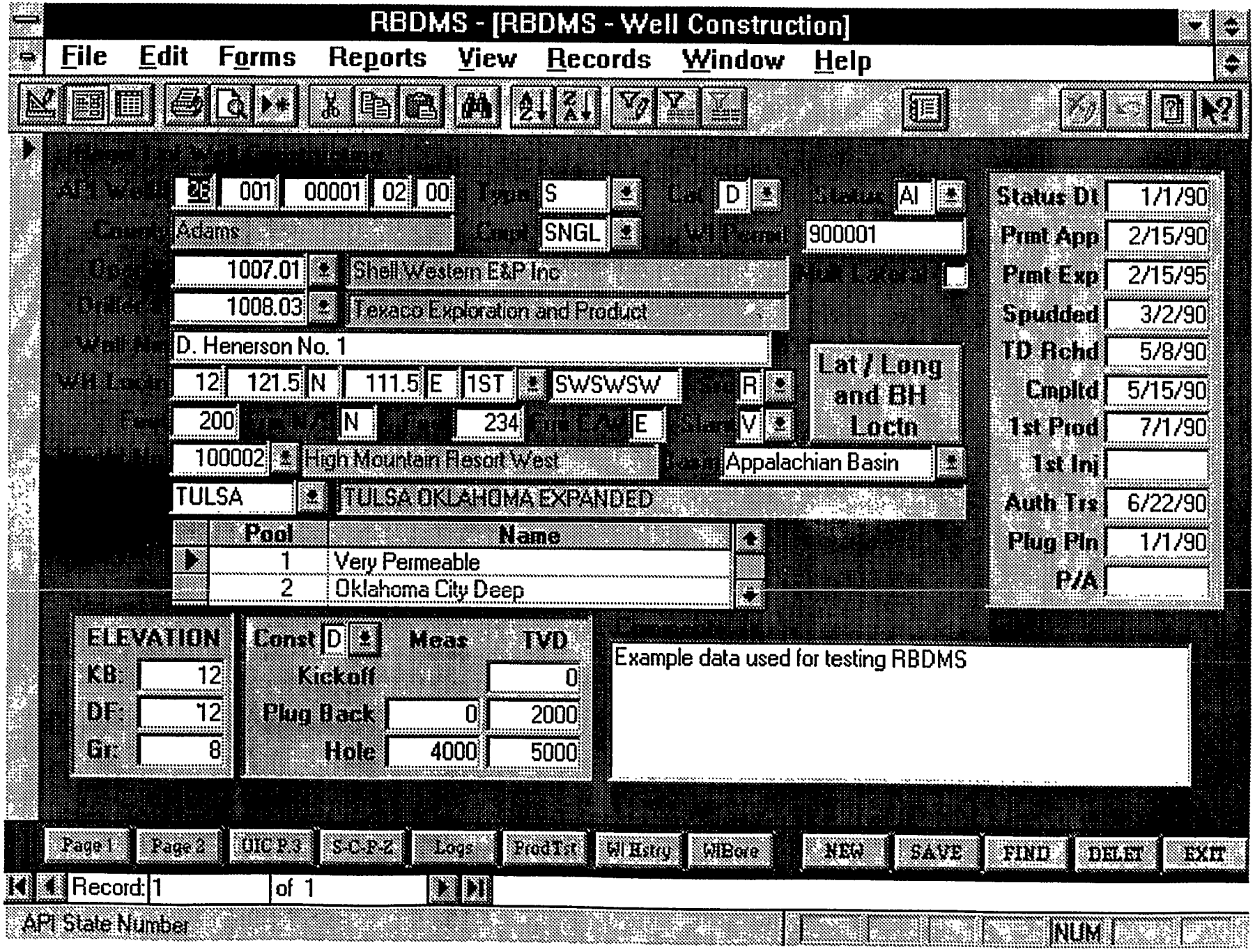

RBDMS - [UIC Monitoring Data]
File Edit Forms Reports View Records Window Help
UIC Monitoring Selection and Sort Criteria
Help
Admin
Field Name
Comparison
Criteria
And/Or
AND
API Well Number
Basin
Operator Name
Date last modified
Field Number
Lease Number
Max. allowable injection pressure
Max. allowable rate of injection
Report status
Well Type
Record: 1 of 1
OK
Cancel
Year:
New Test
Print Form
Search
Violation
23-Dec-94
Save/Exit
Cancel
Well Filter
Record: 1 of 1
Enter field name to use for selecting records or choose from list
NUM

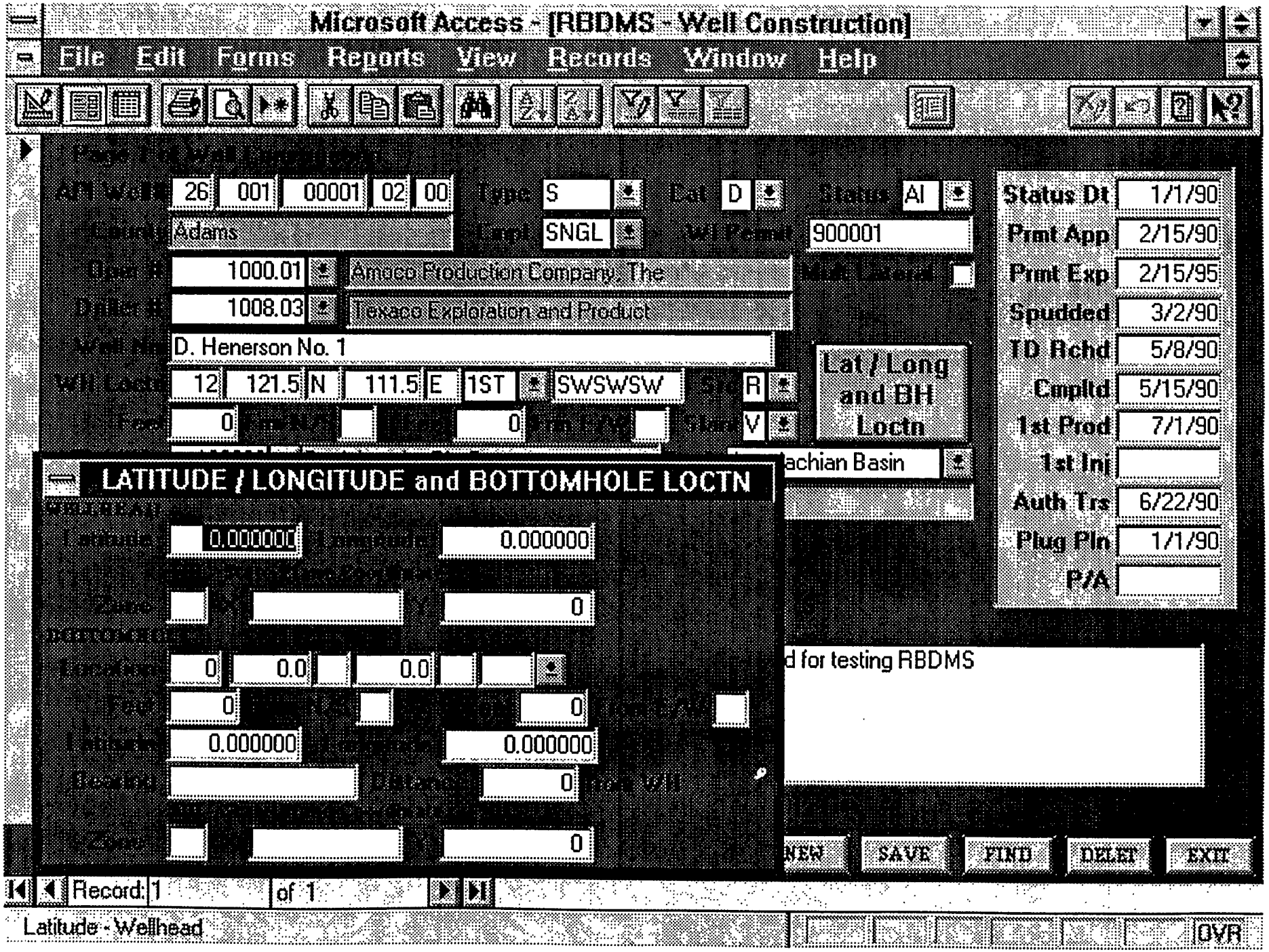

Microsoft Access - [UIC Monitoring Data]
File Edit Forms Reports View Records Window Help
Well Name: D Henderson No. 2
Operator: Amoco Production Company
County: Adams
14 E 1ST nenene
API Well No: 26-001-00001-02-
Reporting Frequency: 0
Ann. Fluid Type: BRN
Max. Allowable Injection Rate: 0
Year: 1994
Month
Add Violation
Enter violation date.
OK
Cancel
12/23/94
MO Adj Del t Pt(mx) Pt
as Skim Pt(av) Dt Mod
1 30 400 0 0 0 2/23/94
2 28 400 0 0 0 2/23/94
3 30 400 0 0 0 2/23/94
4 30 450 0 0 0 2/23/94
5 30 450 0 0 0 2/23/94
6 30 450 0 0 0 2/23/94
7 30 500 0 0 0 2/23/94
8 30 500 350 55 55 500 500 0 0 0 0 2/23/94
9 30 500 350 55 55 500 500 0 0 0 0 2/23/94
10 30 400 350 55 55 500 500 0 0 0 0 2/23/94
11 30 400 350 55 55 500 500 0 0 0 0 2/23/94
12 30 450 350 55 55 500 500 0 0 0 0 2/23/94
Record: 1 of 12
New Test
Print Form
23-Dec-94
Save/Exit
Search
Violation
Cancel
Well Filter
Record: 2 of 66
OVR

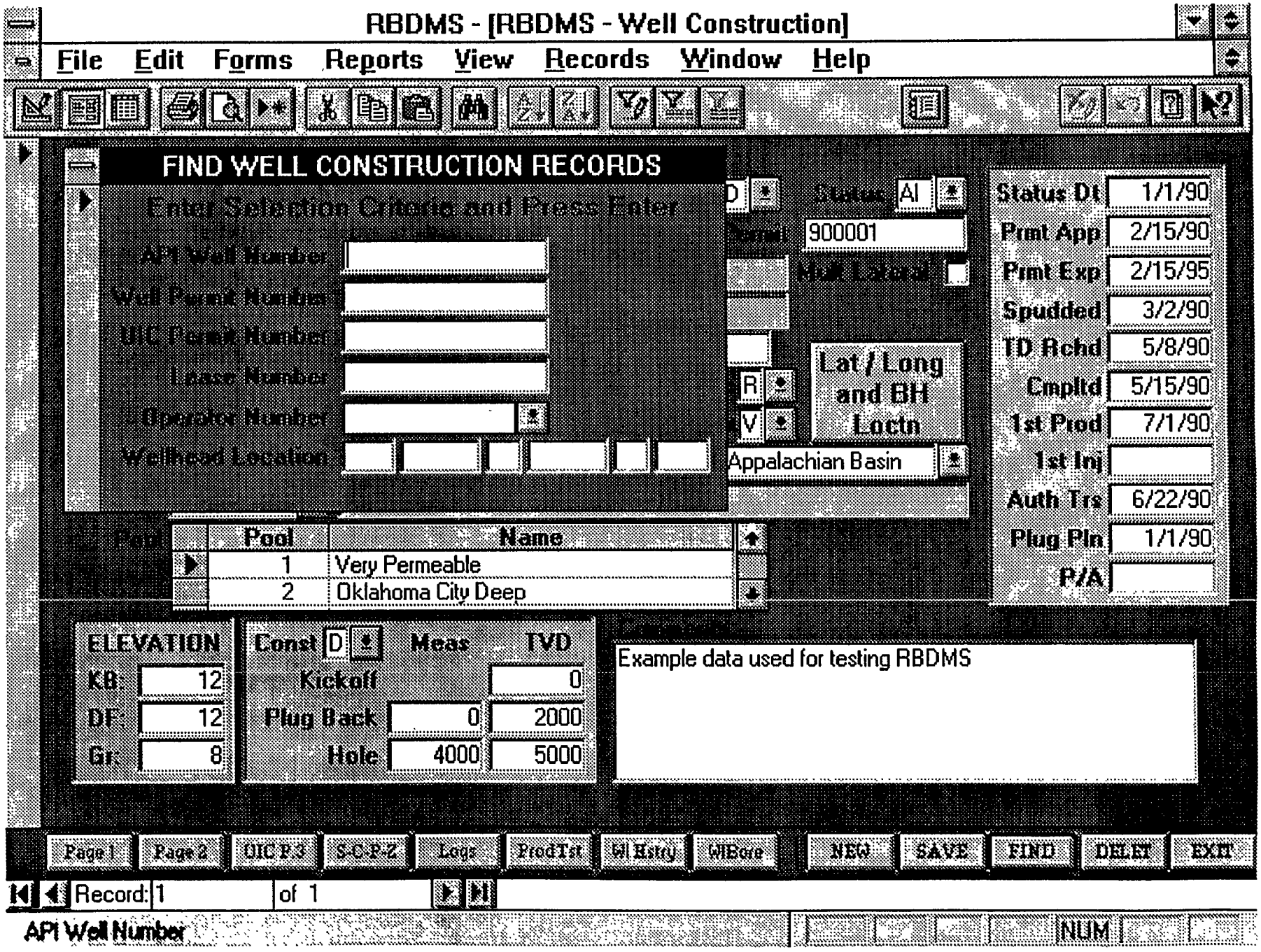

Microsoft Access - [UIC Permits and Orders]
File Edit Forms Reports View Records Window Help
Permit No: MS60000
Appl. Rec: 5/5/94
Operator: Amerada Hess Corporation
General Permit Information
Permit Type: A
Affidavit Rec?: Yes
Board Petitioned?: No
Permit Writer: Richmond, T.
Board Order No.: 60000
Docket Number 60000
Cause Number 60000
Permit Application Information
Modification? No
Appl. Comp. 5/5/94
P&A Plan 5/5/94
UIC Permit Tracking Data
Issued 6/5/94
Effective 6/5/94
Denied
Withdrawn
Pub. Not. 5/5/94
Fee Collect 5/5/94
Fee Amnt $100.00
Wells Associated with this UIC Permit:
Add Well:
API Well Number: Well Name:
26-001-99999-00-00 Farmhouse No. 40-4
26-001-99998-00-00 A. Gore No. 4-0
26-003-99998-00-00 J. Harmon No. 22
26-001-99999-01-00 Hillsborough 27-19
Record: 1 of 9
UIC Permit Modification Data
Type.: Injection Zone Change
Major or Minor?: Major Modification
Reason: Permit Transfer
This permit was applied for following the development of a new waterflood project in the eastern part of the county
New
Print Form
Search
Violation
Record Mod Text 12/5/94
Save/Exit
Cancel
Well Filter
Record: 1 of 41
Enter the State UIC Permit Number, example: MS99999
OVR

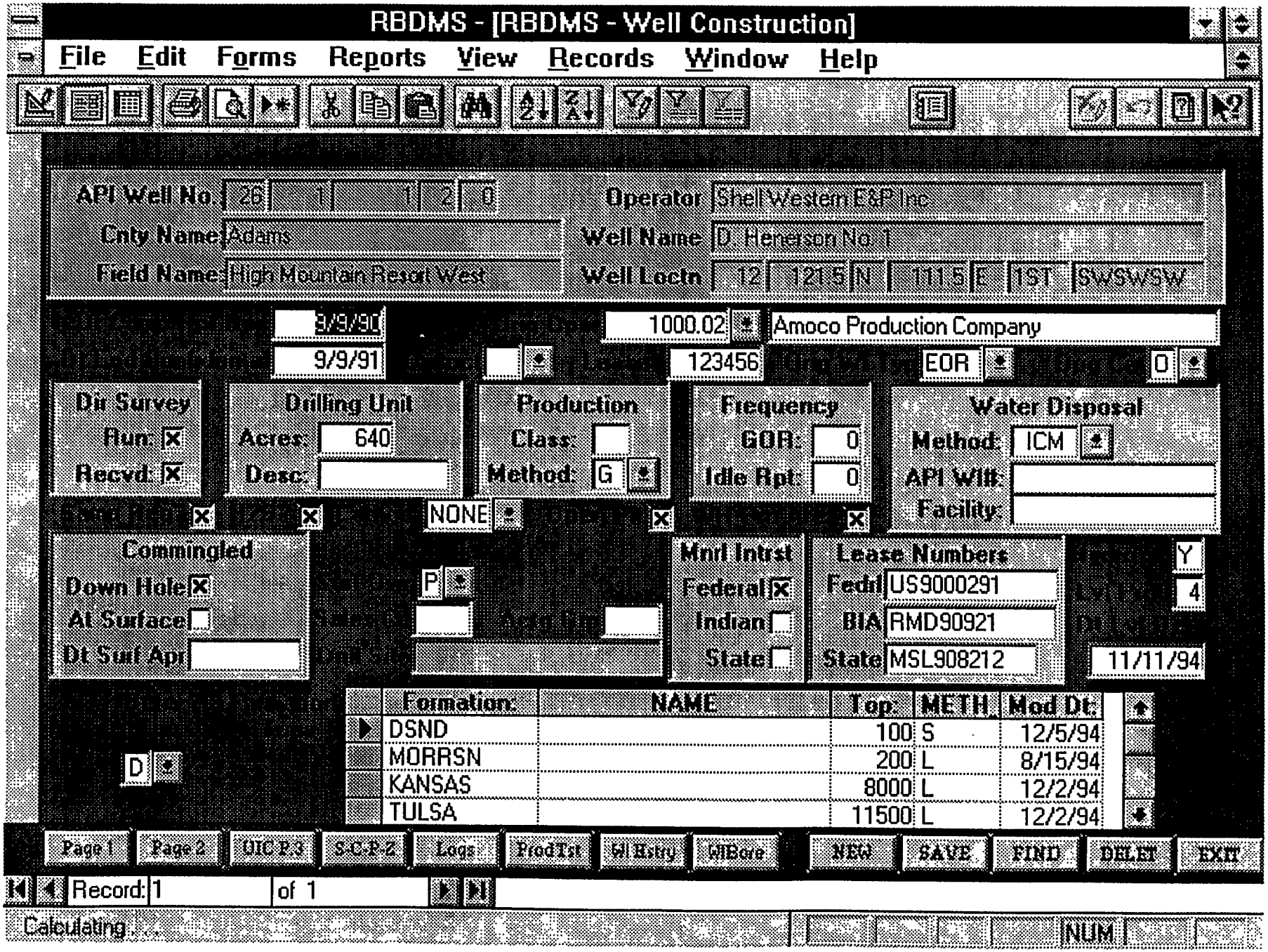

Microsoft Access - [UIC Permits and Orders]
File Edit Forms Reports View Records Window Help
Permit No: MS60000
Appl. Rec'd: 5/5/94
Operator: Amerada Hess Corporation
General Permit Information
Permit Type: A
Affidavit Rec?: Yes
Board Petitioned?: No
Permit Writer: Richmond, T.
Board Order No.: 60000
Docket Number 60000
Cause Number 60000
Permit Application Information
Modification? No
Appl. Comp. 5/5/94
P&A Plan 5/5/94
UIC Permit Tracking Data
Issued 6/5/94
Effective 6/5/94
Denied
Withdrawn
Pub. Not. 5/5/94
Fee Collect 5/5/94
Fee Amnt $100.00
Wells Associated with this UIC Permit:
Add Well:
API Well Number: Well Name:
26-001-99999-00-00 Farmhouse No. 40-4
26-001-99998-00-00 A. Gore No. 4-0
26-003-99998-00-00 J. Harmon No. 22
26-001-99999-01-00 Hillsborough 27-19
Record: 1 of 9
UIC Permit Modification Data
Type.: Injection Pressure Increase
Major or Minor?: Major Modification
Reason: Permit Transfer
Well Alteration
Compl. Sch. Initiated
New Information
New Regulations
Other Modification
Permit Transfer
This permit was a
of a new waterflo
county
ent
he
New
Print Form
Search
Violation
Date Mod Rec'd 12/5/94
Save/Exit
Cancel
Well Filter
Record: 1 of 41
Reason or cause for this permit modification?
OVR

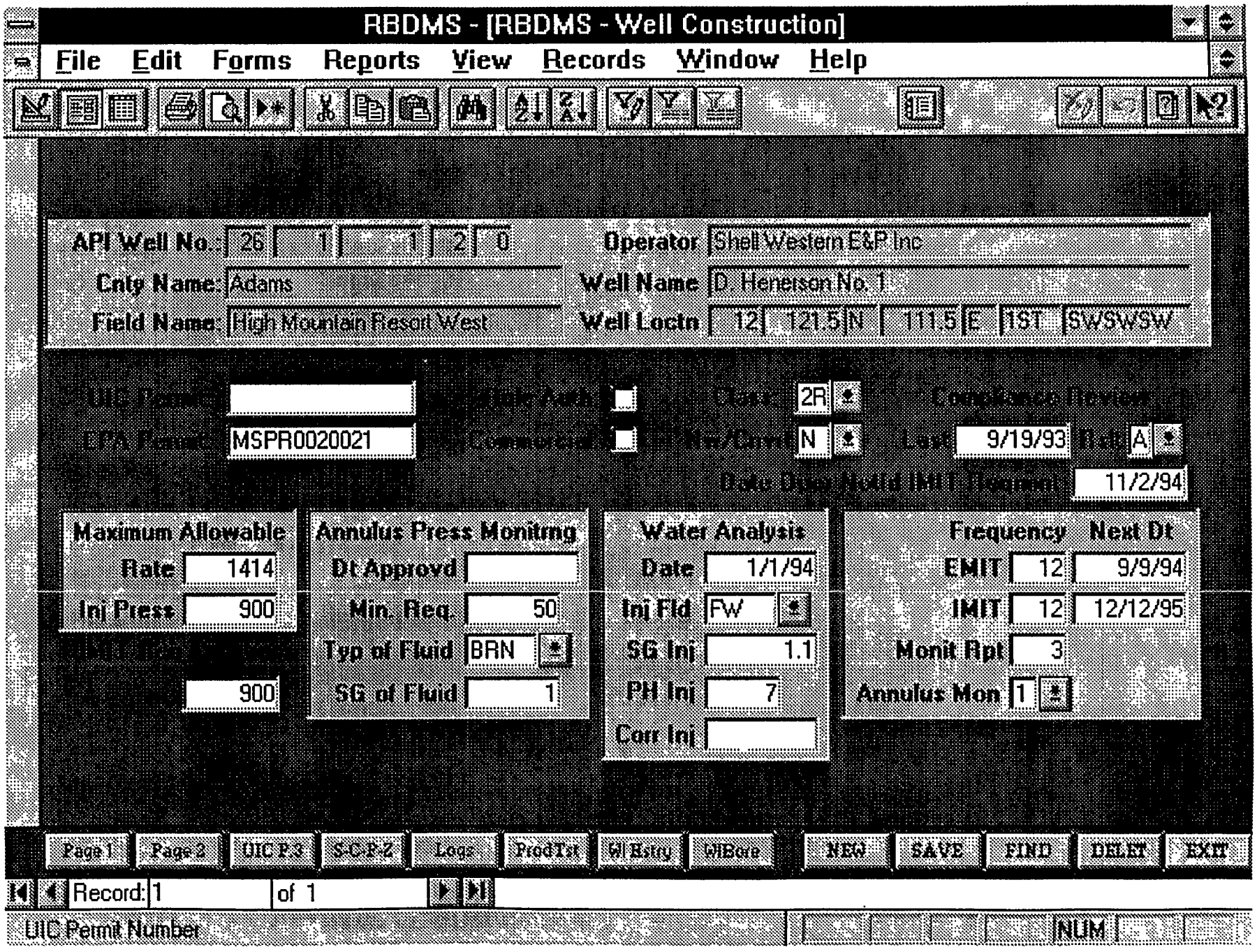

Microsoft Access - [UIC Permits and Orders]
File Edit Forms Reports View Records Window Help
UIC Permit Selection and Sort Criteria
Help
User: Admin
Field Name
Comparison
Criteria
And/Or
Date Application
>
01/01/94
AND
AND
Record: 2
of 2
FieldName
Order
Date Effective
Asc
Asc
Record: 1
of 1
OK
Cancel
General P
Affidav
Board Pet
Permit W
Modificatio
No
Issued
6/5/94
Pub. No
5/5/94
New
Print Form
Search
Violation
12/23/94
Save/Exit
Cancel
Well Filter
Record: 1
of 41
Select Sort Criteria
OVR

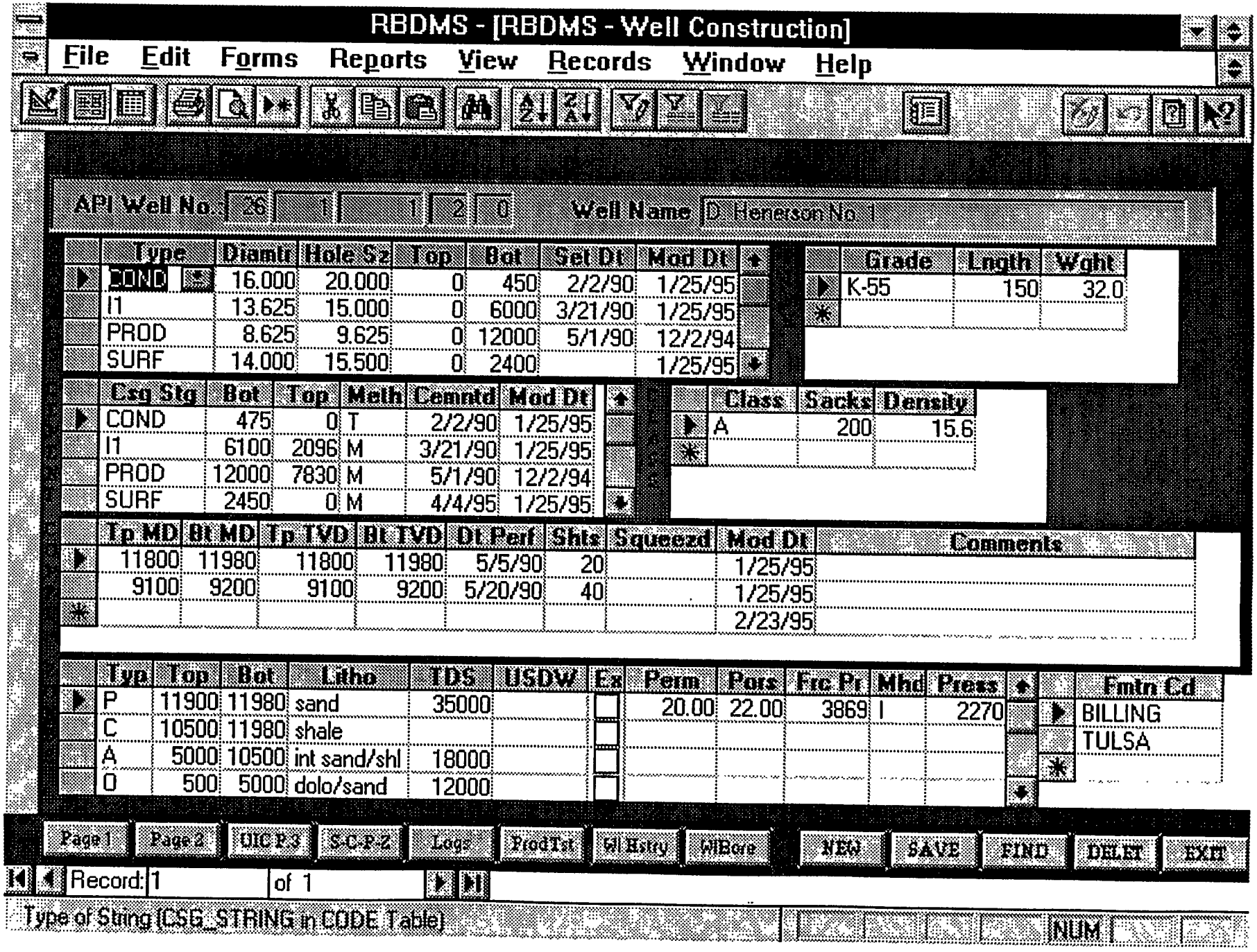

RBDMS - [RBDMS - Well Construction]
File Edit Forms Reports View Records Window Help
API Well # 25 001 00001 02 00
Type S
Cat D
Status AI
County Adams
Compl SNGL
Wl Permit 900001
Operator 1007.01 Shell Western E&P Inc
Original Op 1008.03 Texaco Exploration and Product
Well Name D. Henerson No. 1
Wl Locatn 12 121.5 N 111.5 E 1ST SWSWSW Sec R
Feet 200 N 234 E Survey V
Lat / Long and BH Loctn
Field 100002 High Mountain Flesort West
Basin Appalachian Basin
TULSA TULSA OKLAHOMA EXPANDED
Pool Name
1 Very Permeable
2 Oklahoma City Deep
Status Dt 1/1/90
Prmt App 2/15/90
Prmt Exp 2/15/95
Spudded 3/2/90
TD Rchd 5/8/90
Cmpltd 5/15/90
1st Prod 7/1/90
1st Inj
Auth Trs 6/22/90
Plug Pln 1/1/90
P/A
ELEVATION
KB: 12
DF: 12
Gr: 8
Const D
Meas TVD
Kickoff 0
Plug Back 0 2000
Hole 4000 5000
Example data used for testing RBDMS
Page 1 Page 2 UIC P-3 S-C-P-2 Logs ProdTst Wl Hstry WlBore NEW SAVE FIND DELET EXIT
Record: 1 of 1
API State Number
NUM

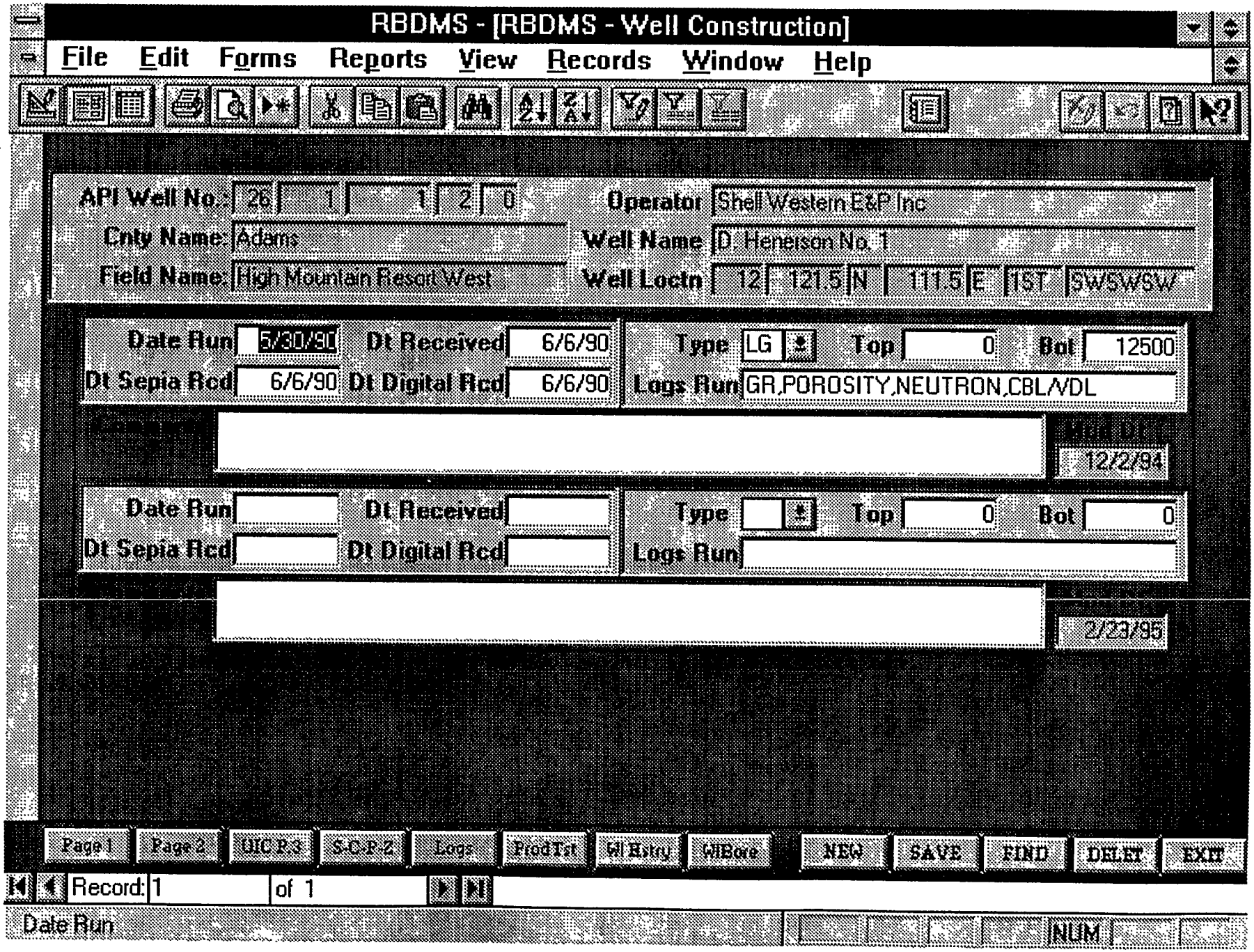

Microsoft Access - [RBDMS - Well Construction]
File Edit Forms Reports View Records Window Help
API Well 26 001 00001 02 00
Type S
Dat D
Status AI
Adams
Compl SNGL
WI Permit 900001
1000.01
Amoco Production Company, The
1008.03
Texaco Exploration and Product
D. Henerson No. 1
12 121.5 N 111.5 E 1ST SWSWSW
R
0
0
V
Lat / Long and BH Loctn
achian Basin
Status Dt 1/1/90
Prmt App 2/15/90
Prmt Exp 2/15/95
Spudded 3/2/90
TD Rchd 5/8/90
Cmpltd 5/15/90
1st Prod 7/1/90
1st Inj
Auth Trs 6/22/90
Plug Pln 1/1/90
P/A
LATITUDE / LONGITUDE and BOTTOMHOLE LOCTN
0.000000
0.000000
0
0 0.0 0.0
0
0
0.000000
0.000000
0
0
d for testing RBDMS
NEW SAVE FIND DELET EXIT
Record: 1 of 1
Latitude - Wellhead
OVR

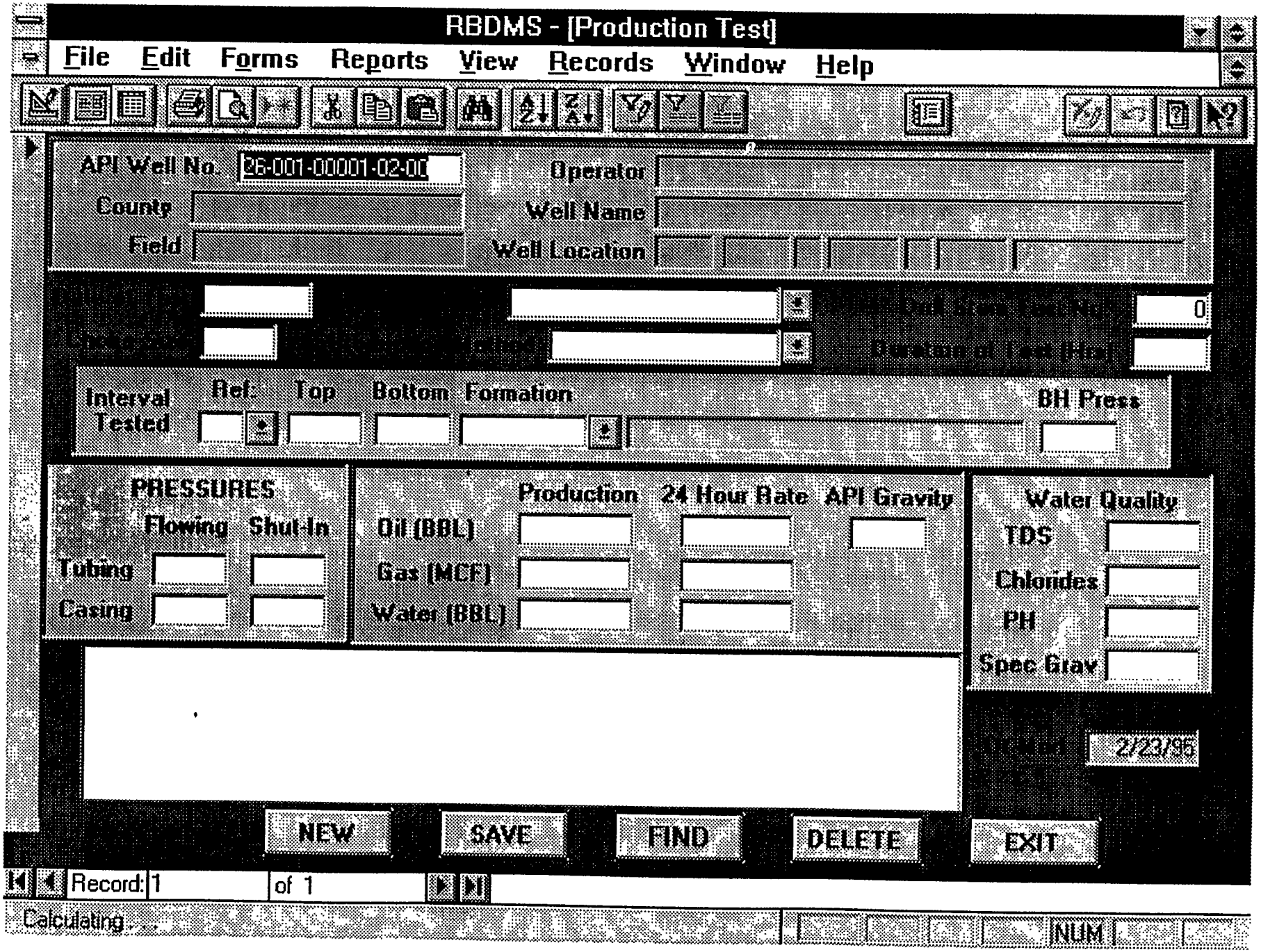

RBDMS - [RBDMS - Well Construction]
File Edit Forms Reports View Records Window Help
FIND WELL CONSTRUCTION RECORDS
Enter Selection Criteria and Press Enter
API Well Number
Well Permit Number
UIC Permit Number
Lease Number
Operator Number
Wellhead Location
Status Al
900001
Mult Lateral
Lat / Long and BH Loctn
Appalachian Basin
Status Dt 1/1/90
Pmt App 2/15/90
Pmt Exp 2/15/95
Spudded 3/2/90
TD Rchd 5/8/90
Cmpltd 5/15/90
1st Prod 7/1/90
1st Inj
Auth Trs 6/22/90
Plug Pln 1/1/90
P/A
Pool
Pool Name
1 Very Permeable
2 Oklahoma City Deep
ELEVATION
KB: 12
DF: 12
Gr: 8
Const D
Meas TVD
Kickoff 0
Plug Back 0 2000
Hole 4000 5000
Example data used for testing RBDMS
Page 1 Page 2 UIC P-3 S-C-P-Z Logs ProdTst Wl Hstry WlBore NEW SAVE FIND DELET EXIT
Record: 1 of 1
API Well Number
NUM

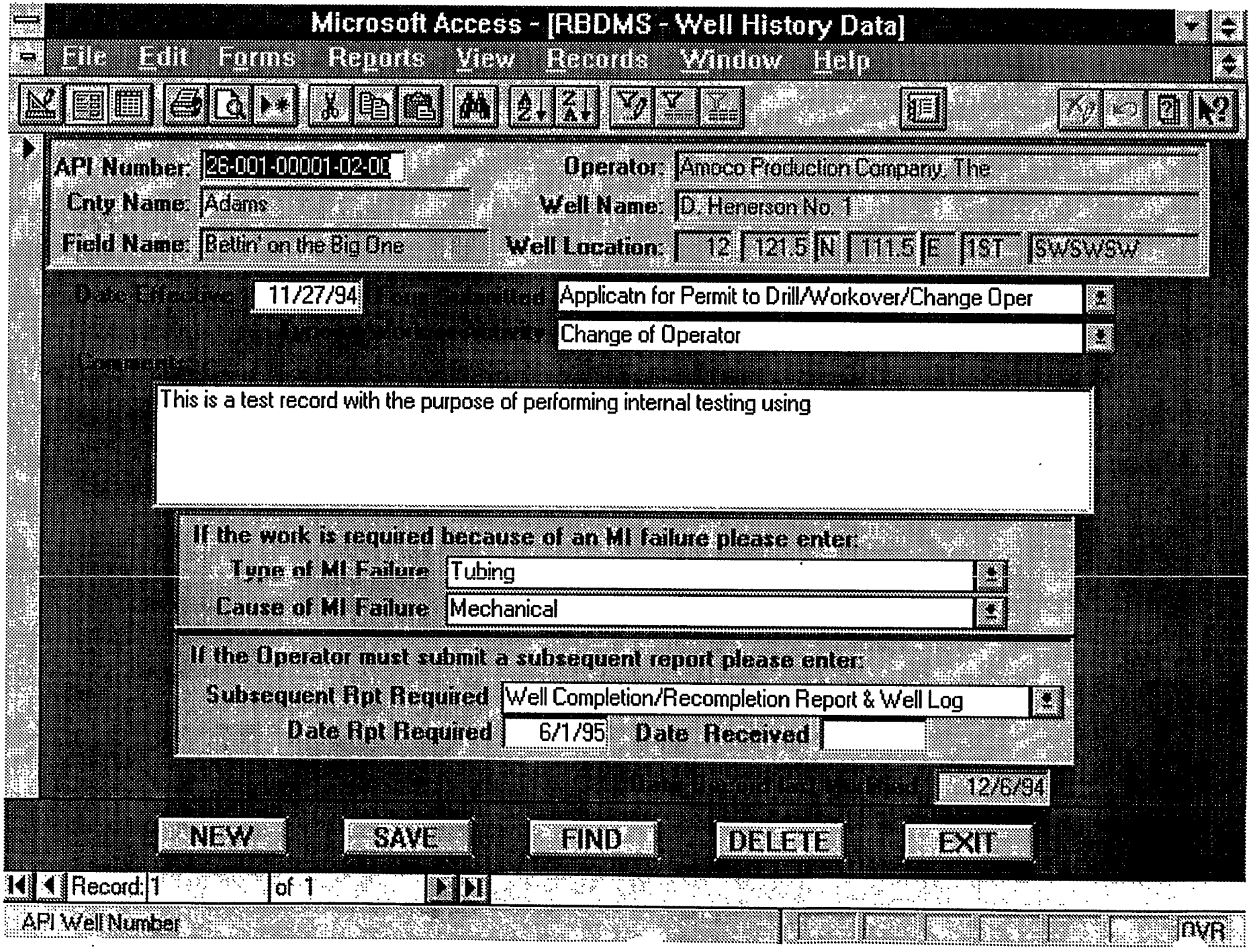

RBDMS - [RBDMS - Well Construction]
File Edit Forms Reports View Records Window Help
API Well No. 26 1 1 2 0
Operator Shell Western E&P Inc
Cnty Name Adams
Well Name D. Henerson No. 1
Field Name High Mountain Resort West
Well Loctn 12 12S N 111 E 1ST SWSWSW
9/9/90
9/9/91
1000.02
Amoco Production Company
123456
EOR
0
Dir Survey
Run:
Recvd:
Drilling Unit
Acres: 640
Desc:
Production
Class:
Method: G
Frequency
GOR: 0
Idle Rpt: 0
Water Disposal
Method: ICM
API Wlt:
Facility:
NONE
Commingled
Down Hole
At Surface
Dt Surf Apr
P
Mnrl Intrst
Federal
Indian
State
Lease Numbers
Fedrl US9000291
BIA RMD90921
State MSL908212
Y
4
11/11/94
Formation: NAME Top: METH Mod Dt:
DSND 100 S 12/5/94
MORRSN 200 L 8/15/94
KANSAS 8000 L 12/2/94
TULSA 11500 L 12/2/94
D
Page 1 Page 2 OIC P-3 S-C-P-Z Logs ProdTst Wl Hstry WlBore NEW SAVE FIND DELET EXIT
Record: 1 of 1
Calculating...
NUM

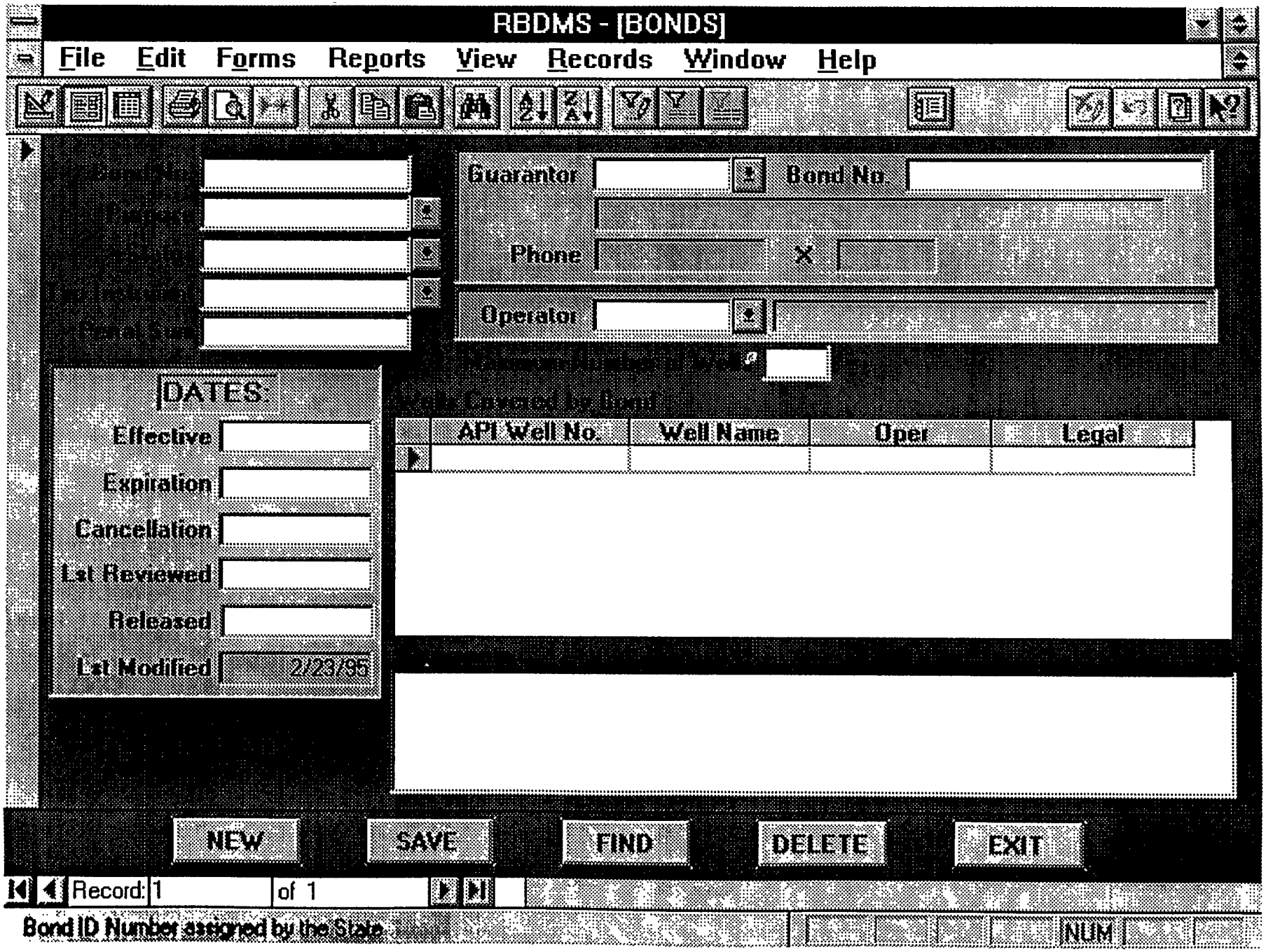

RBDMS - [RBDMS - Well Construction]
File Edit Forms Reports View Records Window Help
API Well No.: 25 1 1 2 0
Operator Shell Western E&P Inc
Cnty Name: Adams
Well Name D. Henerson No. 1
Field Name: High Mountain Resort West
Well Loctn 12 T21.5 N 111.5 E 1ST SWSWSW
UIC Permit
Exc Auth
Class 2R
Compliance Review
EPA Permit MSPR0020021
Commercial
New/Current N
Last 9/19/93
Evt A
Date Depth Notfd (MIT Required) 11/2/94
Maximum Allowable
Rate 1414
Inj Press 900
900
Annulus Press Monitrng
Dt Approvd
Min. Req. 50
Typ of Fluid BRN
SG of Fluid 1
Water Analysis
Date 1/1/94
Inj Fld FW
SG Inj 1.1
PH Inj 7
Corr Inj
Frequency Next Dt
EMIT 12 9/9/94
IMIT 12 12/12/95
Monit Rpt 3
Annulus Mon 1
Page 1 Page 2 UIC P-3 S-C-P-Z Logs ProdTst Wl Estry WlBore NEW SAVE FIND DELET EXIT
Record: 1 of 1
UIC Permit Number
NUM

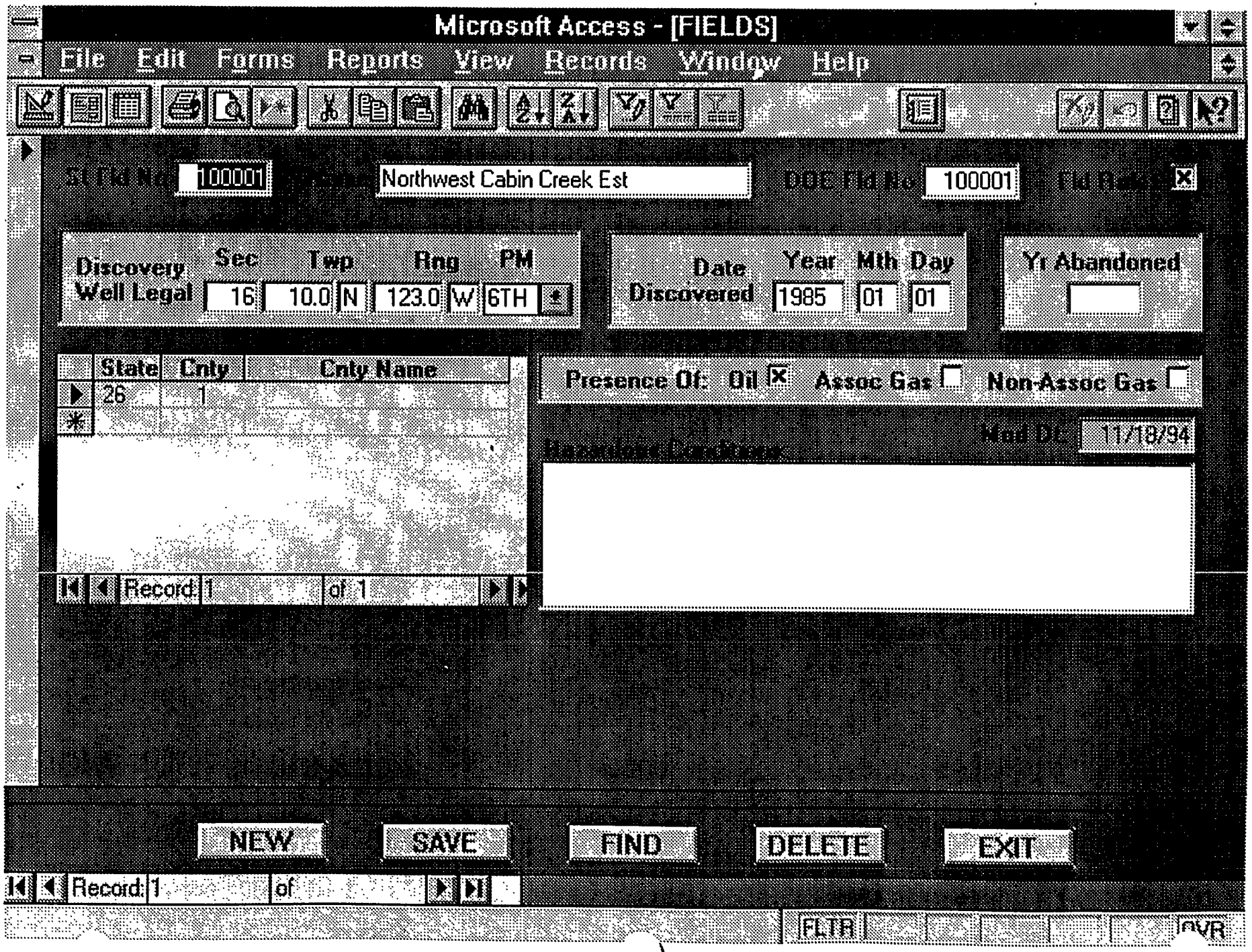

RBDMS - [RBDMS - Well Construction]
File Edit Forms Reports View Records Window Help
API Well No.: 26 1 1 2 0
Well Name: D Henerson No 1
Type | Diamtr | Hole Sz | Top | Bot | Set Dt | Mod Dt
COND | 16.000 | 20.000 | 0 | 450 | 2/2/90 | 1/25/95
I1 | 13.625 | 15.000 | 0 | 6000 | 3/21/90 | 1/25/95
PROD | 8.625 | 9.625 | 0 | 12000 | 5/1/90 | 12/2/94
SURF | 14.000 | 15.500 | 0 | 2400 | | 1/25/95
Grade | Lngth | Wght
K-55 | 150 | 32.0
Csg Stg | Bot | Top | Meth | Cemntd | Mod Dt
COND | 475 | 0 | T | 2/2/90 | 1/25/95
I1 | 6100 | 2096 | M | 3/21/90 | 1/25/95
PROD | 12000 | 7830 | M | 5/1/90 | 12/2/94
SURF | 2450 | 0 | M | 4/4/95 | 1/25/95
Class | Sacks | Density
A | 200 | 15.6
Tp MD | Bt MD | Tp TVD | Bt TVD | Dt Perf | Shts | Squeezd | Mod Dt | Comments
11800 | 11980 | 11800 | 11980 | 5/5/90 | 20 | | 1/25/95
9100 | 9200 | 9100 | 9200 | 5/20/90 | 40 | | 1/25/95
2/23/95
Typ | Top | Bot | Litho | TDS | USDW | Ex | Perm | Pors | Frc Pr | Mhd | Press
P | 11900 | 11980 | sand | 35000 | | | 20.00 | 22.00 | 3869 | I | 2270
C | 10500 | 11980 | shale
A | 5000 | 10500 | int sand/shl | 18000
O | 500 | 5000 | dolo/sand | 12000
Fmtn Cd
BILLING
TULSA
Page 1 Page 2 UIC P-3 S-C-P-Z Logs ProdTst Wl Hstry WlBore NEW SAVE FIND DELET EXIT
Record: 1 of 1
Type of String (CSG_STRING in CODE Table)
NUM

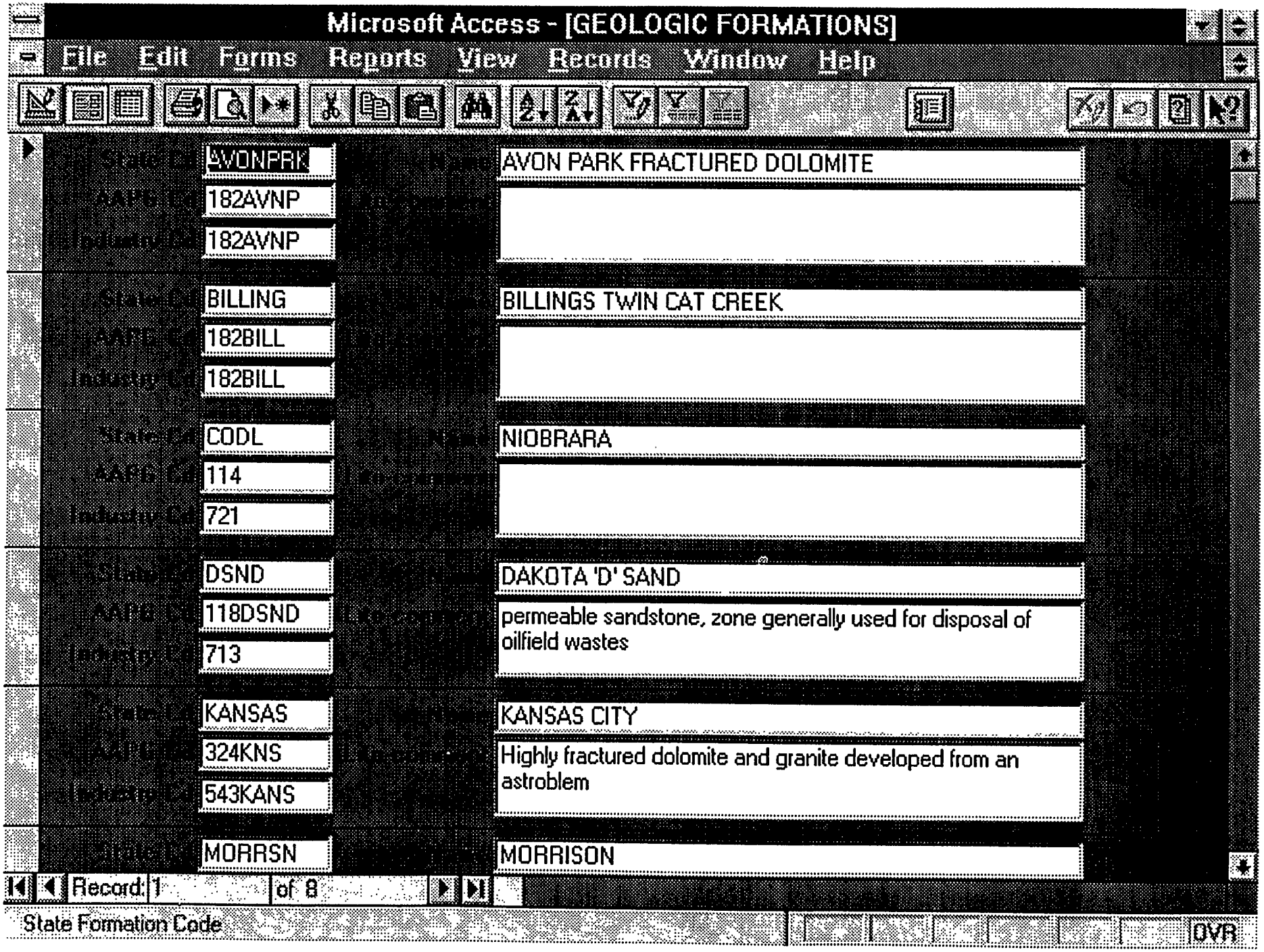

RBDMS - [RBDMS - Well Construction]
File Edit Forms Reports View Records Window Help
API Well No.: 26 1 1 2 0
Operator: Shell Western E&P Inc
Cnty Name: Adams
Well Name: D. Henerson No. 1
Field Name: High Mountain Resort West
Well Loctn: 12 T21.5 N 111.5 E 15T SW/SW/SW
Date Run: 5/30/90
Dt Received: 6/6/90
Type: LG
Top: 0
Bot: 12500
Dt Sepia Rcd: 6/6/90
Dt Digital Rcd: 6/6/90
Logs Run: GR,POROSITY,NEUTRON,CBL/VDL
12/2/94
Date Run:
Dt Received:
Type:
Top: 0
Bot: 0
Dt Sepia Rcd:
Dt Digital Rcd:
Logs Run:
2/23/95
Page 1 Page 2 UIC P-3 S-C-P-Z Logs Prod Tst Wl Hstry WlBore NEW SAVE FIND DELET EXIT
Record: 1 of 1
Date Run
NUM

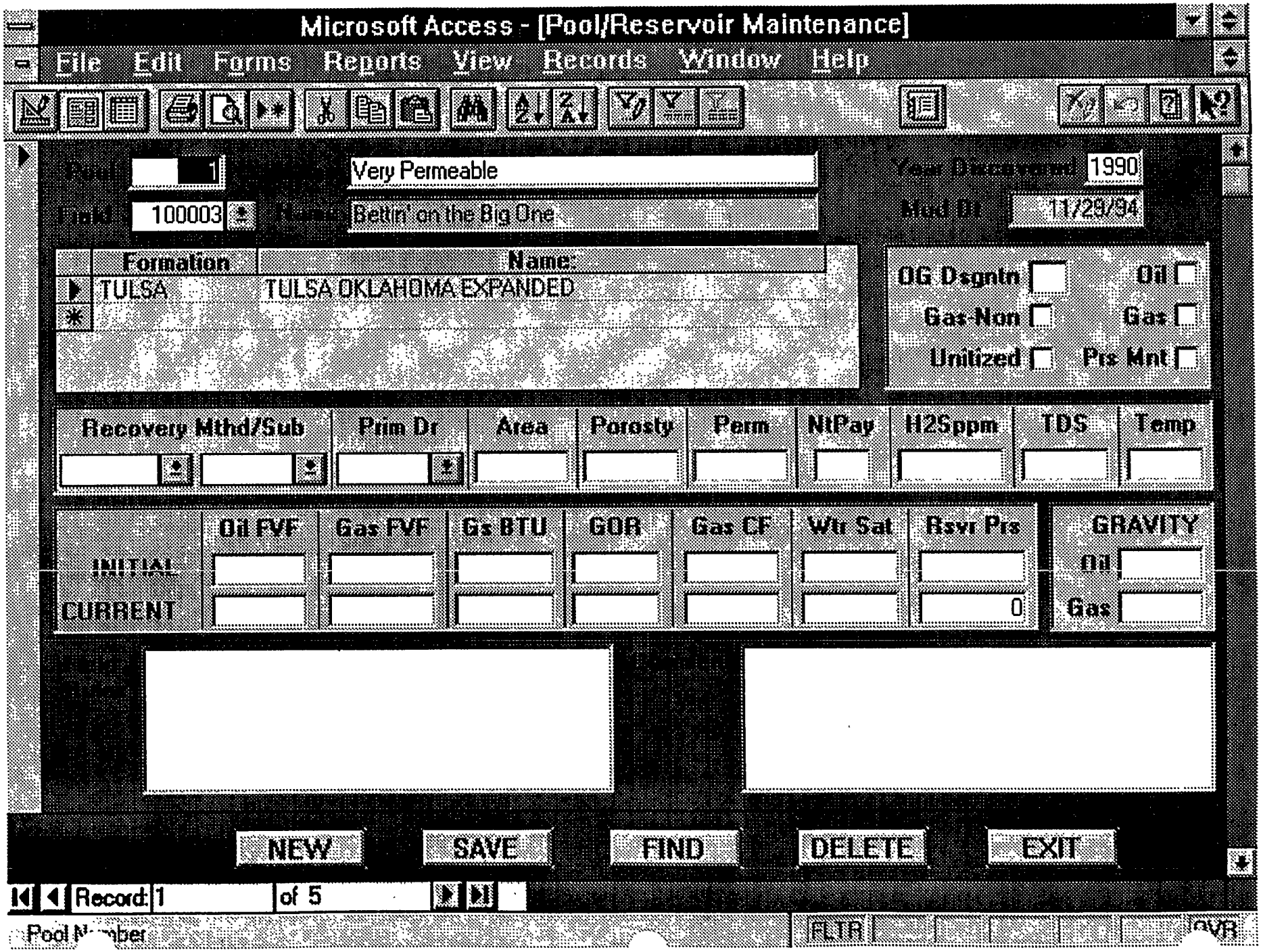

RBDMS - [Production Test]
File Edit Forms Reports View Records Window Help
API Well No.
26-001-00001-02-00
Operator
County
Well Name
Field
Well Location
Interval Tested
Ref.
Top
Bottom
Formation
BH Press
PRESSURES
Flowing
Shut-In
Tubing
Casing
Production
24 Hour Rate
API Gravity
Oil (BBL)
Gas (MCF)
Water (BBL)
Water Quality
TDS
Chlorides
PH
Spec Grav
2/23/95
NEW
SAVE
FIND
DELETE
EXIT
Record: 1
of 1
Calculating...
NUM

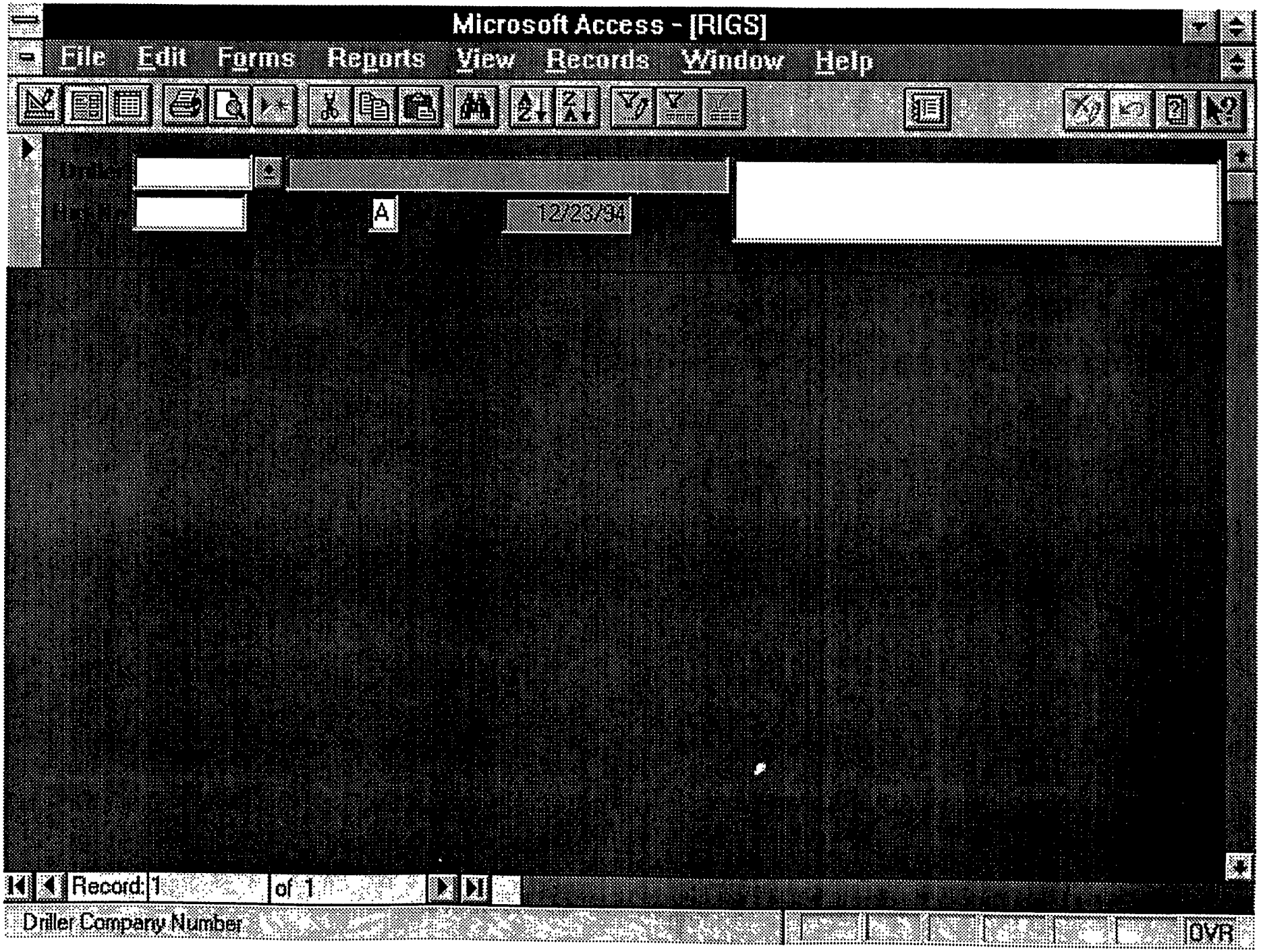

Microsoft Access - [RBDMS - Well History Data]
File Edit Forms Reports View Records Window Help
API Number: 26-001-00001-02-00
Operator: Amoco Production Company, The
Cnty Name: Adams
Well Name: D. Henerson No. 1
Field Name: Bettin' on the Big One
Well Location: 12 121.5 N 111.5 E 1ST SWSWSW
11/27/94
Applicatn for Permit to Drill/Workover/Change Oper
Change of Operator
This is a test record with the purpose of performing internal testing using
If the work is required because of an MI failure please enter:
Type of MI Failure: Tubing
Cause of MI Failure: Mechanical
If the Operator must submit a subsequent report please enter:
Subsequent Rpt Required: Well Completion/Recompletion Report & Well Log
Date Rpt Required: 6/1/95
Date Received:
12/6/94
NEW
SAVE
FIND
DELETE
EXIT
Record: 1 of 1
API Well Number
NVR

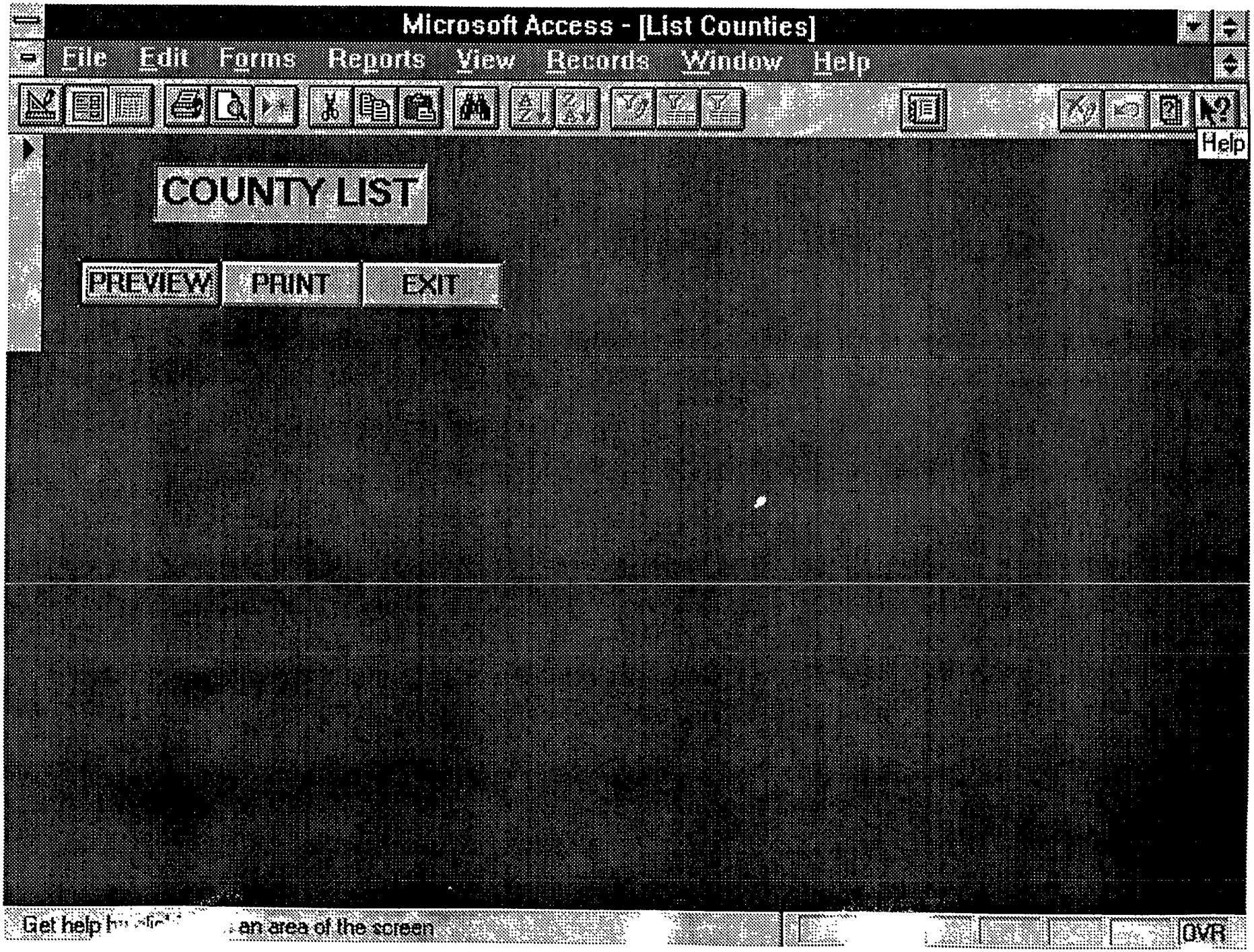

RBDMS - [BONDS]
File Edit Forms Reports View Records Window Help
Guarantor
Bond No.
Phone
Operator
DATES
Effective
Expiration
Cancellation
Lst Reviewed
Released
Lst Modified
2/23/95
API Well No.
Well Name
Oper
Legal
NEW
SAVE
FIND
DELETE
EXIT
Record: 1
of 1
Bond ID Number assigned by the State
NUM

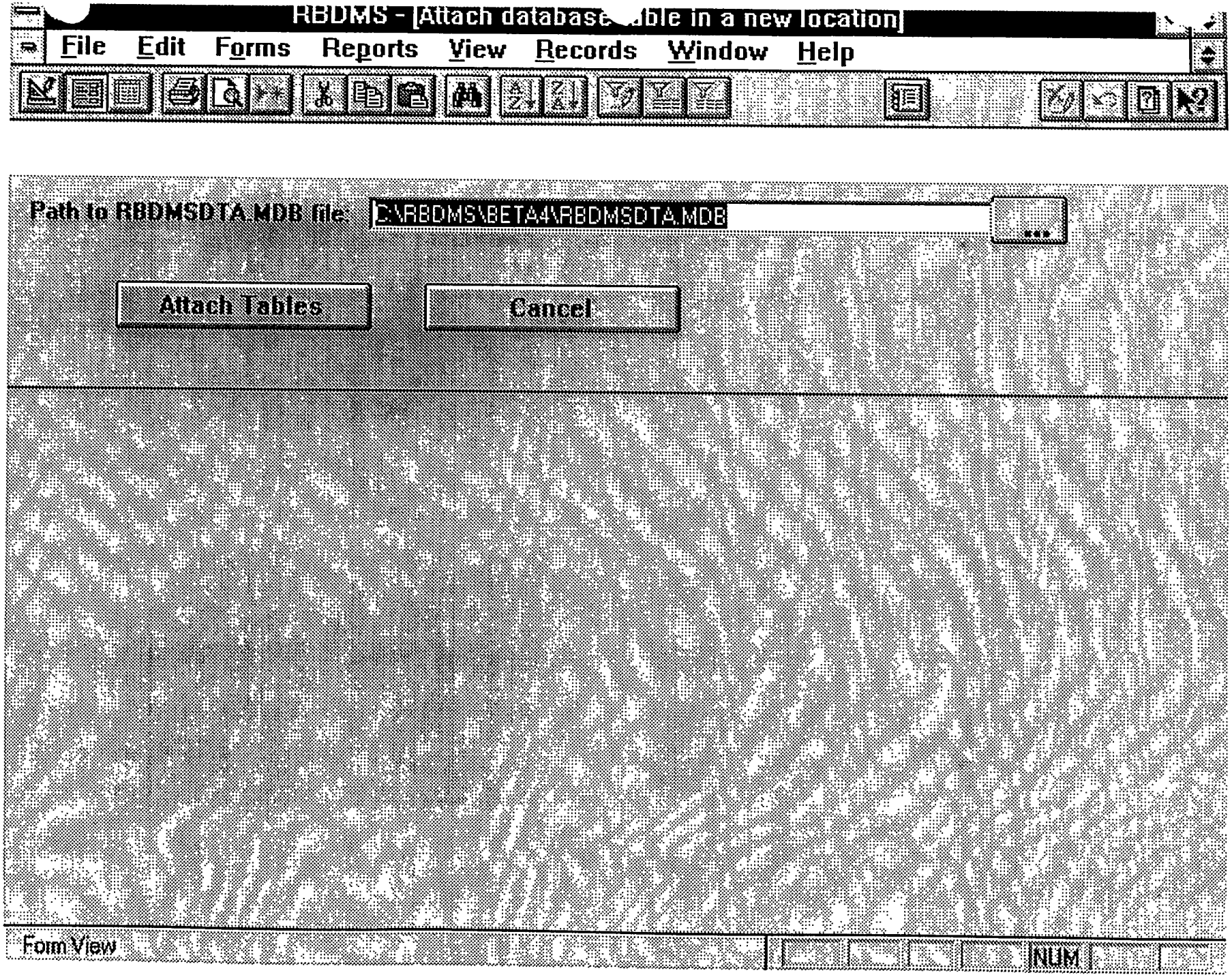

Microsoft Access - [FIELDS]
File Edit Forms Reports View Records Window Help
100001
Northwest Cabin Creek Est
DOE Fld No 100001
Discovery Well Legal
Sec 16
Twp 10.0 N
Rng 123.0 W
PM 6TH
Date Discovered
Year 1985
Mth 01
Day 01
Yr Abandoned
State Cnty Cnty Name
26 1
Presence Of: Oil Assoc Gas Non-Assoc Gas
Mod Dt 11/18/94
Record: 1 of 1
NEW
SAVE
FIND
DELETE
EXIT
Record: 1 of
FLTR

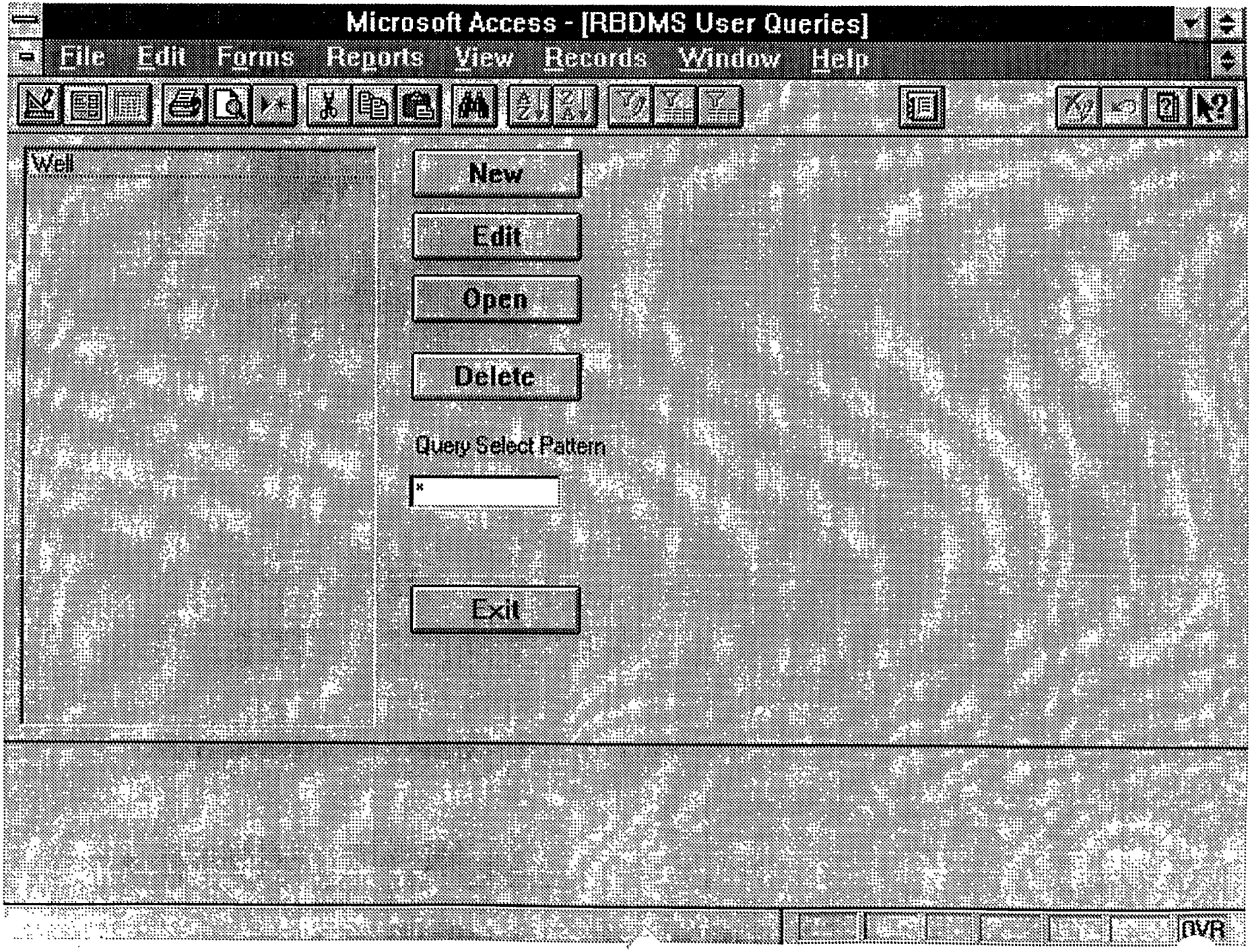

Microsoft Access - [GEOLOGIC FORMATIONS]
File Edit Forms Reports View Records Window Help
AVONPRK
AVON PARK FRACTURED DOLOMITE
182AVNP
182AVNP
BILLING
BILLINGS TWIN CAT CREEK
182BILL
182BILL
CODL
NIOBRARA
114
721
DSND
DAKOTA 'D' SAND
118DSND
permeable sandstone, zone generally used for disposal of oilfield wastes
713
KANSAS
KANSAS CITY
324KNS
Highly fractured dolomite and granite developed from an astroblem
543KANS
MORRSN
MORRISON
Record: 1
of 8
State Formation Code
OVR

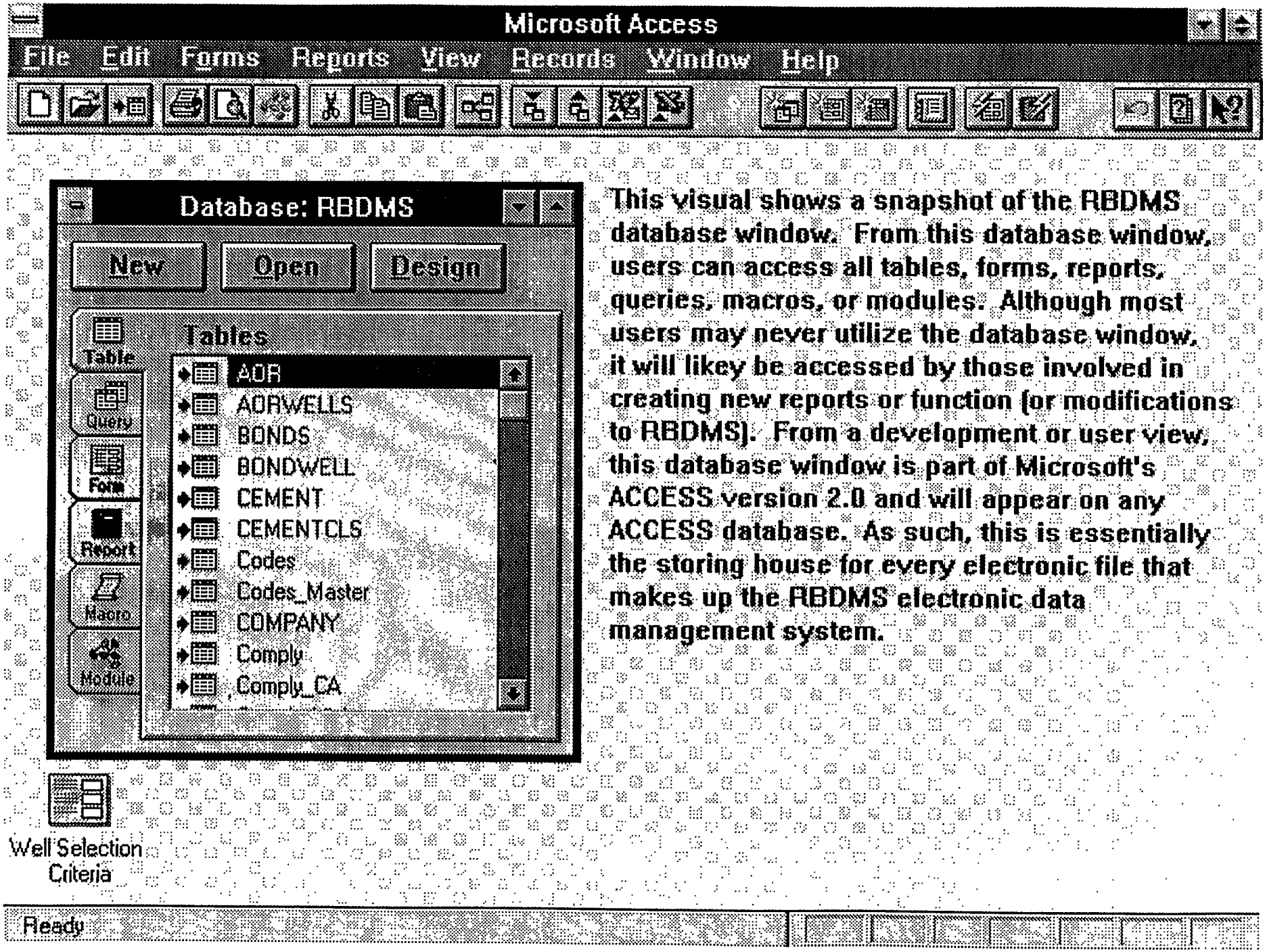

Microsoft Access - [Pool/Reservoir Maintenance]
File Edit Forms Reports View Records Window Help
Pool 1
Very Permeable
Year Discovered 1990
Field 100003
Bettin' on the Big One
Mod Dt 11/29/94
Formation
Name:
TULSA
TULSA OKLAHOMA EXPANDED
OG Dsgntn
Oil
Gas-Non
Gas
Unitized
Prs Mnt
Recovery Mthd/Sub
Prim Dr
Area
Porosty
Perm
NtPay
H2Sppm
TDS
Temp
Oil FVF
Gas FVF
Gs BTU
GOR
Gas CF
Wtr Sat
Rsvr Prs
GRAVITY
INITIAL
CURRENT
0
Oil
Gas
NEW
SAVE
FIND
DELETE
EXIT
Record: 1
of 5
Pool Number
FLTR
OVR


Microsoft Access - [RIGS]
File Edit Forms Reports View Records Window Help
A
12/23/94
Record: 1 of 1
Driller Company Number
OVR

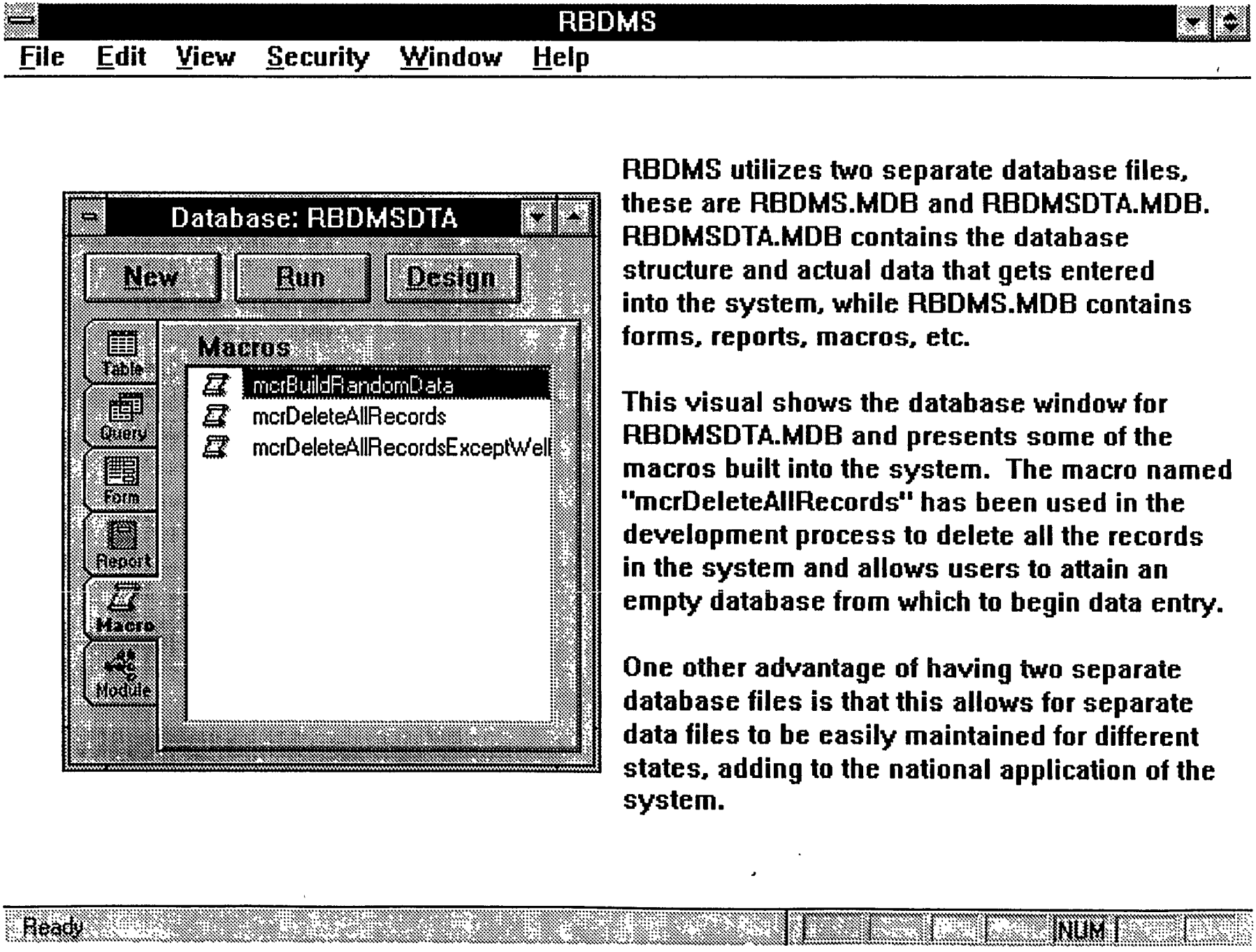

Microsoft Access - [List Counties]
File Edit Forms Reports View Records Window Help
Help
COUNTY LIST
PREVIEW
PRINT
EXIT
an area of the screen
OVR


RBDMS - [Attach database table in a new location]
File Edit Forms Reports View Records Window Help
Path to RBDMSDTA.MDB file:
C:\RBDMS\BETA4\RBDMSDTA.MDB
...
Attach Tables
Cancel
Form View
NUM


Microsoft Access - [RBDMS User Queries]
File Edit Forms Reports View Records Window Help
Well
New
Edit
Open
Delete
Query Select Pattern
*
Exit
OVR



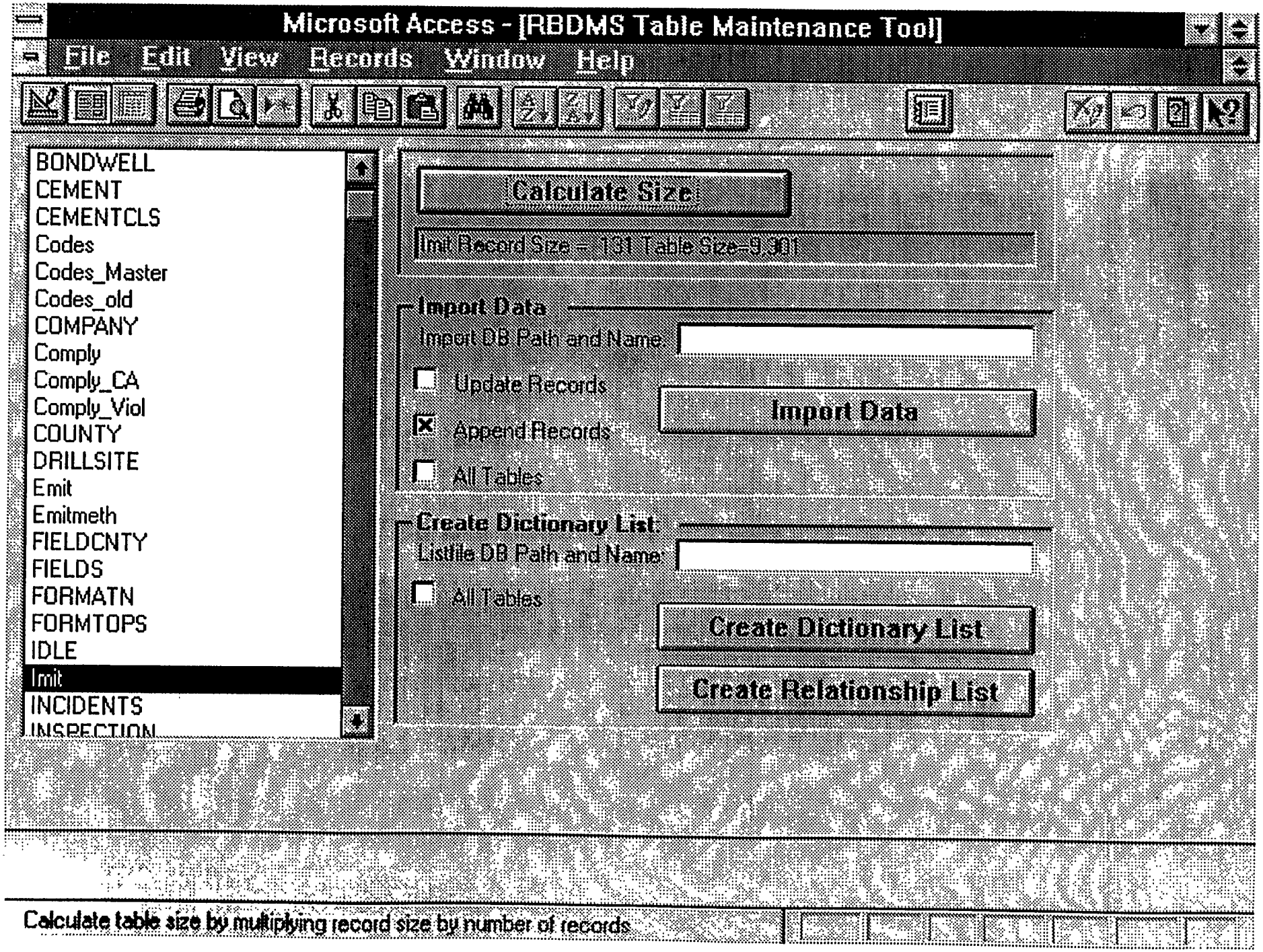
This visual shows a snapshot of the RBDMS database window. From this database window, users can access all tables, forms, reports, queries, macros, or modules. Although most users may never utilize the database window, it will likey be accessed by those involved in creating new reports or function (or modifications to RBDMS). From a development or user view, this database window is part of Microsoft's ACCESS version 2.0 and will appear on any ACCESS database. As such, this is essentially the storing house for every electronic file that makes up the RBDMS electronic data management system.

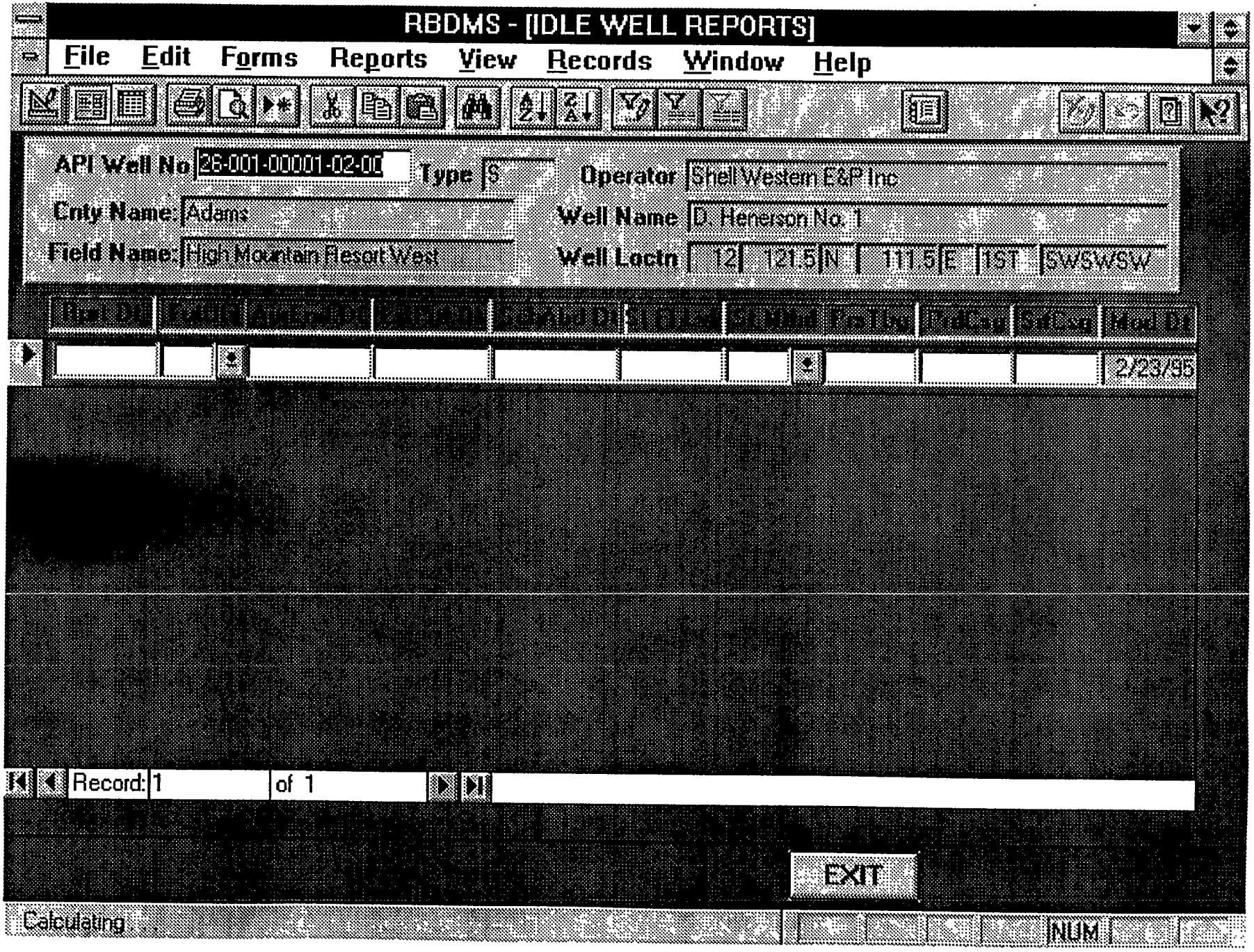


RBDMS utilizes two separate database files, these are RBDMS.MDB and RBDMSDTA.MDB. RBDMSDTA.MDB contains the database structure and actual data that gets entered into the system, while RBDMS.MDB contains forms, reports, macros, etc.

This visual shows the database window for RBDMSDTA.MDB and presents some of the macros built into the system. The macro named "mcrDeleteAllRecords" has been used in the development process to delete all the records in the system and allows users to attain an empty database from which to begin data entry.

One other advantage of having two separate database files is that this allows for separate data files to be easily maintained for different states, adding to the national application of the system.


Microsoft Access - [RBDMS Table Maintenance Tool]
File Edit View Records Window Help
BONDWELL
CEMENT
CEMENTCLS
Codes
Codes_Master
Codes_old
COMPANY
Comply
Comply_CA
Comply_Viol
COUNTY
DRILLSITE
Emit
Emitmeth
FIELDCNTY
FIELDS
FORMATN
FORMTOPS
IDLE
Imit
INCIDENTS
INSPECTION
Calculate Size
Imit Record Size = 131 Table Size=9,301
Import Data
Import DB Path and Name:
Update Records
Append Records
All Tables
Import Data
Create Dictionary List
Listfile DB Path and Name:
All Tables
Create Dictionary List
Create Relationship List
Calculate table size by multiplying record size by number of records


RBDMS - [IDLE WELL REPORTS]
File Edit Forms Reports View Records Window Help
API Well No 26-001-00001-02-00 Type S
Operator Shell Western E&P Inc
Cnty Name: Adams
Well Name D. Henerson No. 1
Field Name: High Mountain Resort West
Well Loctn 12 121.5 N 111.5 E 1ST SWSWSW
2/23/95
Record: 1 of 1
EXIT
Calculating...
NUM

RBDMS Codes Table

RBDMS, ver. 4.0

Field	Description	Code	Mx Lngth	Definition	Comments
		A		Acceptable	
		A		Adequate	
		CMT		Cement	
		CSG		Casing	
		D		Deficient	
		F		Failure	
		Last Updat		Codes Last Update 11/08/94 BLB 584 Codes	
		OEF		Other External Failure	
		OIF		Other Internal Failure	
		PKR		Packer	
		TBG		Tubing	
		WHA		Wellhead Assembly	
		X		Need to be Defined	
ACTION	Actions Taken	Needed	2	Codes needed for INCIDENTS.ACTION	
		XX	2	INCIDENTS.ACTION Codes Must be Added	
ANN_FLUID	Type of Fluid in Annulus	BRN	4	Brine	
		FWTR	4	Fresh Water	
		IFWT	4	Inhibited Fresh Water	
		INBR	4	Inhibited Brine	
AOR_VAR	AOR Variance Granted	A	1	AOR	
		V	1	Variance	
BASIN	AAPG Basin & Geologic Province Codes	100	3	New England Province	
		110	3	Adirondack Uplift	
		120	3	Atlantic Coast Basin	
		123	3	Denver	
		130	3	South Georgia Sedimentary Province	
		140	3	Florida Platform	
		150	3	Piedmont-Blue Ridge Province	
		160	3	Appalachian Basin	
		200	3	Black Warrior Basin	

Field	Description	Code	Mx	th	Definition	Comments
BASIN	AAPG Basin & Geologic Province Codes	210		3	Mid-Gulf Coast Basin	
		220		3	Gulf Coast Basin	
		230		3	Arkla Basin	
		234		3	Williston	
		240		3	Desha Basin	
		250		3	Upper Mississippi Embayment	
		260		3	East Texas Basin	
		300		3	Cincinnati Arch	
		305		3	Michigan Basin	
		310		3	Wisconsin Arch	
		315		3	Illinois Basi..	
		320		3	Sioux Uplift	
		325		3	Iowa Shelf	
		330		3	Lincoln Anticline	
		335		3	Forest City Basin	
		340		3	Ozark Uplift	
		345		3	Arkoma Basin	
		350		3	South Oklahoma Folded Belt	
		355		3	Chataqua Platform	
		360		3	Anadarko Basin	
		365		3	Cherokee Basin	
		370		3	Nemaha Anticline	
		375		3	Sedgwick Basin	
		380		3	Salina Basin	
		385		3	Central Kansas Uplift	
		390		3	Chadron Arch	
		395		3	Williston Basin	
		400		3	Quachita Folded Belt	
		405		3	Kerr Basin	
		410		3	Llano Uplift	
		415		3	Strawn Basin	
		420		3	Fort Worth Syncline	
		425		3	Bend Arch	
		430		3	Permian Basin	
		435		3	Palo Duro Basin	

Field	Description	Code	Mx	th	Definition	Comments	ge
BASIN	AAPG Basin & Geologic Province Codes	445		3	Sierra Grande Uplift		
		450		3	Las Animas Arch		
		455		3	Las Vegas-Raton Basin		
		460		3	Estancia		
		465		3	Orogrande Basin		
		470		3	Pedregosa Basin		
		475		3	Basin-and-Range Province		
		500		3	Sweetgrass Arch		
		503		3	North Western Overthrust		
		505		3	Montana Folded Belt		
		507		3	Central Western Overthrust		
		509		3	South Western Overthrust		
		510		3	Central Montana Uplift		
		515		3	Powder River Basin		
		520		3	Big Horn Basin		
		525		3	Yellowstone Province		
		530		3	Wind River Basin		
		535		3	Green River Basin		
		540		3	Denver Basin		
		545		3	North Park Basin		
		550		3	South Park Basin		
		555		3	Eagle Basin		
		560		3	San Luis Basin		
		565		3	San Juan Mountains Province		
		575		3	Uinta Basin		
		580		3	San Juan Basin		
		585		3	Paradox Basin		
		590		3	Black Mesa Basin		
		595		3	Piceance Basin		
		600		3	Northern Cascade Range-Okanagan Province		
		605		3	Eastern Columbia Basin		
		610		3	Idaho Mountains Province		
		615		3	Snake River Basin		
		620		3	Southern Oregon Basin		
		625		3	Great Basin Province		

Field	Description	Code	Mx	th	Definition	Comments
BASIN	AAPG Basin & Geologic Province Codes	630		3	Wasatch Uplift	
		635		3	Plateau Sedimentary Province	
		640		3	Mojave Basin	
		645		3	Salton Basin	
		650		3	Sierra Nevada Province	
		678		3	Forrest City	
		700		3	Bellingham Basin	
		705		3	Puget Sound Province	
		710		3	Western Columbia Basin	
		715		3	Klamath Mountains Province	
		720		3	Eel River Basin	
		725		3	Northern Coast Range Province	
		730		3	Sacramento Basin	
		735		3	Santa Cruz Basin	
		740		3	Coastal Basins	
		745		3	San Joaquin Basin	
		750		3	Santa Maria Basin	
		755		3	Ventura Basin	
		760		3	Los Angeles Basin	
		765		3	Capistrano Basin	
		789		3	Salina	
		900		3	Fundy Basin	
		901		3	Maine Shelf	
		903		3	Georges Bank Trough	
		905		3	Baltimore Canyon Trough	
		910		3	Carolina Trough	
		920		3	Southeast Georgia Embayment	
		925		3	Balke Plateau Basin	
		930		3	Florida Platform	
		940		3	Gulf Coast Basin	
		943		3	Western Columbia Basin	
		945		3	Eel River Basin? Duplicate in AAPG Code List	
		948		3	Point Arena Basin	
		950		3	Santa Cruz (Bodega) Basin	
		953		3	Santa Maria Basin	

Field	Description	Code	M.	th	Definition	Comments
BASIN	AAPG Basin & Geologic Province Codes	955		3	Santa Barbara Channel Basin	
		956		3	Pacific Coast (outer)	
		957		3	Southern California Borderlands Province	
		960		3	Gulf of Mexico (outer)	
		961		3	Atlantic Coast (outer)	
		989		3	Lake Superior	
		993		3	Lake Michigan	
		994		3	Lake Huron	
		997		3	Lake Erie	
		999		3	Lake Ontario	
CAT	Well Category	D		1	Development	
		O		1	Other	
		W		1	Wildcat	
CATHOD	Cathodic Protection Method	abc		4	This is test data entered at the demo	
		CDEF		4	Cathodic Protection - NEED TO BE ADDED	
		NONE		4	No Cathodic Protection	
		XXX		4	Additional Codes Need to Be Added	
CLASS	Class of Injection Well	1H		2	Hazardous Waste Injection Well	
		1I		2	Non-Hazardous Industrial Waste Injection Well	
		2D		2	Salt Water Disposal Well	
		2H		2	Liquid Hydrocarbon Storage Well	
		2R		2	Enhanced Recovery Injection Well	
		3		2	Solution Mining Well	
		5		2	Class V Injection Well	
CLASS_CMT	Cement Class	A		2	Class A Cement	
		B		2	Class B Cement	
		C		2	Class C Cement	
		D		2	Class D Cement	
		DO		2	Diesel Oil Cement	
		E		2	Class E Cement	
		F		2	Class F Cement	

Field	Description	Code	Max Length	Definition	Comments
CLASS_CMT	Cement Class	G	2	Class G Cement	
		H	2	Type H Cement	
		KE	2	Type K Expanding Cement	
		ME	2	Type M Expanding Cement	
		PC	2	Pozzuolanic Cement	
		PL	2	Possolan-Lime Cement	
		RP	2	Resin or Plastic Cement	
		SE	2	Type S Expanding Cement	
CMPRVWRSLT	Compliance Review Result	A	1	Adequate	
		D	1	Defficient	
CORR_INJ	Corrosivity of Injectate	A	8	Codes and/or Field Type & Size for WELL.CORR_I	
		XXX	8	Must Add Codes for Corrosivity of Injectate	
CSG_STRING	Casing, Liner, Tubing or other Well Component	CIBP	4	Cast Iron Bridge Plug	TYP_PIPE
		COND	4	Conductor	
		HOL1	4	Hole 1	
		HOL2	4	Hole 2	
		HOL3	4	Hole 3	
		HOL4	4	Hole 4	
		HOL5	4	Hole 5	
		I1	4	Intermediate 1 Casing	
		I2	4	Intermediate 2 Casing	
		I3	4	Intermediate 3 Casing	
		L1	4	Liner 1	
		L2	4	Liner 2	
		L3	4	Liner 3	
		PKR	4	Packer	
		PROD	4	Production Casing	
		RBP	4	Retrievable Bridge Plug	
		STRL	4	Structural Casing	
		SURF	4	Surface Casing	
		T1	4	Tubing 1	
		T2	4	Tubing 2	

Field	Description	Code	Mx	.h Definition	Comments
CSG_STRING	Casing, Liner, Tubing or other Well Component	T3	4	Tubing 3	TYP_PIPE
DISP_MTHD	Method of Water Disposal	EV	4	Evaporation Pits	
		ICM	4	Injection - Commercial Facility	
		ICN	4	Injection - Central Facility	
		ILS	4	Injection - On Lease	
		O	4	Other	
		TR	4	Trucked	
EMIT_METH	EMIT Method	CMTL	4	Cement Quality Log	
		CMTR	4	Cementing Records	
		ERTS	4	Radioactive Tracer	
		NOIS	4	Noise Log	
		OAL	4	Oxygen Activation Log	
		OEMI	4	Other External MIT	
		TEMP	4	External Temperature Log	
EMIT_RSLT	EMIT Result	A	1	Acceptable	
		F	1	Failure	
ENF_TYP	Enforcement Type	AO	2	Admin. Order-Other	
		CB	2	Commence Bond Mtg.	
		CD	2	Consent Decree	
		CO	2	Consent Order	
		CR	2	Criminal Referral	
		CV	2	Civil Referral	
		FI	2	Field Inspection	
		IO	2	Informal Action-Other	
		JO	2	Judicial Order-Other	
		NV	2	Notice of Violation	
		PS	2	Pipeline Severence	
		SC	2	Show Cause Hearing	
		SI	2	Shut-In	
		UO	2	Unilateral Order	

Field	Description	Code	Mx ;th	Definition	Comments
FAIL_CAUSE	MI Failure Cause	A	7	Should be defined in EMIT or IMIT db	FAIL_CAUS IN Emit
		BCF_ALT	7	BCFW: Alternate Zone to USDW	
		BCF_INJ	7	BCWF: Inj Zone to USDW	
		BCF_NON	7	BCWF: To NON-USDW	
		BCF_USD	7	BCWF: Between USDW's	
		BCFPROD	7	BCWF: Prod Zone to USDW	
		CMT_THK	7	Inadequate Cement Thickness	
		CMTSEAL	7	Inadequate Cement Seal	
		COR_GEN	7	Corrosion-General	
		COR_INT	7	Corrosion-Internal	
		ICMT	7	Inadequate Cement Records	
		MECH	7	Mechanical	
		MICRO_A	7	Microannulus	
		OPERATN	7	Operational Problem	
		OTHR	7	Other	
		SALT_CO	7	Salt Collapse	
FAIL_TYPE	MI Failure Type	BCF	3	Behind CSG Flow	
		CMT	3	Cement	
		CSG	3	Casing	
		OEF	3	Other External Failure	
		OIF	3	Other Internal Failure	
		PKR	3	Packer	
		TBG	3	Tubing	
		WHA	3	Wellhead Assembly	
FRAC_MTHD	Method by which Frac Press determined	C	1	Calculated	
		I	1	ISIP Instantaneous Shut-In Pressure	
		S	1	Step Rate Test	
FRQ_MONREC	Annually	A		Annually	
		C		Continuous	
		D		Daily	
		M		Monthly	
		Q		Quarterly	

Field	Description	Code	M.	.h	Definition	Comments
FUT_UTIL	Future Utility of Well	FDR		5	Future Deepening or Redrill	
		FERI		5	Future Enhanced Recovery Injection	
		FRC		5	Future Recondition	
		FRCP		5	Future Recompletion	
		FSWD		5	Future Salt Water Disposal	
		NFU		5	No Future Utility	
		SIPG		5	Shut-In Productive Gas	
		SIPO		5	Shut-In Productive Oil	
GRADE	Pipe Grade	C-75		5	Grade C-75 Casing/Tubing	
		C-90		5	Grade C-90 Casing/Tubing	
		C-95		5	Grade C-95 Casing/Tubing	
		H-40		5	Grade H-40 Casing/Tubing	
		HC-95		5	Grade HC-95 Casing/Tubing	
		J-55		5	Grade J-55 Casing/Tubing	
		K-55		5	Grade K-55 Casing/Tubing	
		L-80		5	Grade L-80 Casing/Tubing	
		N-80		5	Grade N-80 Casing/Tubing	
		P-105		5	Grade P-105 Casing/Tubing	
		P-110		5	Grade P-110 Casing/Tubing	
		Q-125		5	Grade Q-125 Casing/Tubing	
		V-150		5	Grade V-150 Casing/Tubing	
IMIT_METH	IMIT Method	ADA		4	Ada Pressure Test	
		BTST		4	Braidenhead Test	
		DUAL		4	Dual Completion Test	
		FLT		4	Fluid Level Test	
		FMTR		4	Flow Meter Test	
		GDAP		4	Gas Detector Ann. Press.	
		IRTS		4	Radioactive Tracer	
		ITAL		4	Temperature Anomaly	
		ITDL		4	Differential Temperature	
		NAPT		4	APT w/No Tubing	
		OIM		4	Other Internal MIT	
		SAMT		4	Annulus Monitoring	

Field	Description	Code	Max Length	Definition	Comments
IMIT_METH	IMIT Method	SAPT	4	Std. Annulus Pres. Test	
		SPRT	4	Single Point Resistivity	
		TEMP	4	Internal Temp. Log	
		WBIT	4	WTR/BRINE Interface	
		WIAT	4	Water-In-Annulus Test	
INJ_FLUID	Type of Injection Fluid	ABCD	4	Type of Injection Fluid - NEED TO BE ADDED	
		BCDE	4	Type of Injection Fluid - NEED TO BE ADDED	
		FW	4	Fresh Water	
		GAS	4	Gas	
		NEED	4	Codes needed for MONITOR, & WELL	
		SW	4	Salt Water	
INSPECTOR	Inspector Name	XXX	10	States must add names of Inspectors	States will enter Inspector names.
MAJ_MIN	Major or Minor Permit Modification	MAJ	3	Major Modification	
		MIN	3	Minor Modificaiton	
METH_DETER	Method by which Cement Tops Determined	M	1	Measured	
		T	1	Theoretical	
METH_OBTND	Method by which Formation Tops Determined	L	1	Logs	
		S	1	Samples	
METH_SNC	SNC Determination Method	OT	3	Other	
		UV	3	Unresolved Violation	
		VT	3	Violation Type	
MOD_CODE	Reason for UIC Permit Modification	AL	3	Well Alteration	
		CS	3	Compl. Sch. Initiated	
		NI	3	New Information	
		NR	3	New Regulations	
		OT	3	Other Modification	
		PT	3	Permit Transfer	

Code Master List

28-Dec-94

Field	Description	Max Lgnth	Tables	Comments
ACTION	Actions Taken	2	INCIDENTS	
ANN_FLUID	Type of Fluid in Annulus	4	WELL	
AOR_VAR	AOR Variance Granted	1	AOR	
BASIN	AAPG Basin & Geologic Province Codes	3	WELL	
CAT	Well Category	1	WELL	
CATHOD	Cathodic Protection Method	4	WELL	
CLASS	Class of Injection Well	2	WELL	
CLASS_CMT	Cement Class	2	CEMENTCLS	
CMPRVWRSLT	Compliance Review Result	1	WELL	
CORR_INJ	Corrosivity of Injectate	8	WELL	
CSG_STRING	Casing, Liner, Tubing or other Well Component	4	STRINGPIPE, STRINGS	TYP_PIPE
DISP_MTHD	Method of Water Disposal	4	WELL	
EMIT_METH	EMIT Method	4	Emit	
EMIT_RSLT	EMIT Result	1	Emit	
ENF_TYP	Enforcement Type	2	Comply	
FAIL_CAUSE	MI Failure Cause	7	WELLHISTRY, Emit	FAIL_CAUS IN Emit
FAIL_TYPE	MI Failure Type	3	Emit, WELLHISTRY	
FRAC_MTHD	Method by which Frac Press determined	1	ZONES	
FRQ_MONREC	Annually			
FUT_UTIL	Future Utility of Well	5	IDLE	
GRADE	Pipe Grade	5	STRINGPIPE	
IMIT_METH	IMIT Method	4	Imit	

Field	Description	Max Lgnth	Tables	Comments
INJ_FLUID	Type of Injection Fluid	4	WELL, Monitor_Spec	
INSPECTOR	Inspector Name	10	INSPECTION	States will enter Inspector names.
MAJ_MIN	Major or Minor Permit Modification	3	UIC_Perm	
METH_DETER	Method by which Cement Tops Determined	1	CEMENT	
METH_OBTND	Method by which Formation Tops Determined	1	FORMTOPS	
METH_SNC	SNC Determination Method	3	Comply	
MOD_CODE	Reason for UIC Permit Modification	3	UIC_Perm	
MOD_TYPE	Type of UIC Permit Modification	4	UIC_Perm	
MON_FRQ	Monitoring Frequency (months)			
MTHD_USDW	Method by which USDW was determined	4	ZONES	
NEW_EXIST	Is UIC Permit for a New or Existing Well	1	WELL	
PERMIT_TYP	UIC Permit Type			
PM	Principal Meridian	3	WELL, FIELDS	
PRI_DRIVE	Primary Reservoir Drive Mechanism	6	POOL	
PROD_MTHD	Production Method	1	WELL, PRODTEST	
PURPOSE	Purpose of Bond	1	BOND	
RCV_MTHSUB	Enhanced Recovery Method	6	POOL	
RCVRY_MTHD	Recovery Method (Phase)	5	POOL	
REC_FREQ	Recording Frequency	1		
REFER	Reference used for Well & Formation Depths	1	WELL	
RPT_FREQ	Reporting Frequency in Months	2		
RPT_STATUS	Report Status	1	Monitor_Spec	
SBSQNT_RPT	Subsequent Report Required	5	WELLHISTRY	
SLANT	Slant of Well	1	WELL	

Field	Description	Max Lgnth	Tables	Comments
SOURCE_LOC	Source of Well Location Coordinates	1	WELL	
ST_DIST	State OGCC District	2	WELL	Codes to be established by States
STAT	Rig Status	1	RIGS	
STATE	State Abbreviation	2	COMPANY	
STATUS	Bond Status	2	BOND	
SURF_OWNER	Surface Owner	1	WELL	
TST_REAS	Reason for Test	6	Emit	
TYP	Type (Log Table- Core, Cuttings, Log)	2	LOGS	
TYP_FORM	Type of OGCC Form Submitted	5	WELLHISTRY	
TYP_INCDNT	Type of Incident	5	INCIDENTS	
TYP_INSP	Type of Inspection	2	INSPECTION	
TYP_INST	Type of Instrument of Financial Responsibility	2	BONDS	
TYP_PUB	Type of Publication	8	PUBLICATN	
TYP_TEST	Type of Test	3	PRODTEST	
TYP_WORK	Type of Work or Activity	5	WELLHISTRY	
TYP_ZONE	Type of Geologic Zone	1	ZONES	
TYPE_CA	Type of Corrective Action	3	Comply	
TYPE_NOTE	Type of Notice or Notification	3	Comply	
VIOL_TYPE	Type of Violation	6	Comply_Viol	
WELL_TYP	Type of Well	4	WELL	
WL_COMPL	Type of Well Completion	4	WELL	
WL_STATUS	Well Status	2	WELL	
YN	Yes/No	1		
YR	Valid Report Year	4	Monitor	

Select Standard Reports

RBDMS, ver. 4.0

List of Included Reports

1. Wells:

- Comprehensive Well Report
- Well Summary Report
- Drilling Statistics by Operator
- Sour Wells By County Report
- List of Confidential Completion Reports (Tight Holes)
- Complaints, Spills and Incidents by Location Report
- List Delinquent Idle Well Reports (Under Construction)

2. UIC:

- Class II UIC Permit Data Report (Well by Well)
- AOR Comprehensive Tracking Report
- Listing of Wells Identified in the AOR Study Area
- Mechanical Integrity Test Report (Pressure Test Form, multiple examples)
- Internal Mechanical Integrity Assessment Report for Wells Using Annulus Pressure Monitoring (APM)
- Internal Mechanical Integrity Testing Tracking Report
- External MI Well Failure Summary Report
- External Mechanical Integrity Testing Tracking Report
- Class II Injection Well Monitoring Report Tracking System (Injection Volumes/Pressures)
- Injection Pressure/Rate Excedence Tracking Report System
- EPA 7520 Reports
    - Part I: Permit Review and Issuance / Wells in Area of Review
    - Part II-a: Compliance Evaluation
    - Part II-b: Compliance Evaluation Significant Noncompliance
    - Part III: Inspections Mechanical Integrity Testing
    - Part IV: Quarterly Exception Report
- Environmental Risk Analysis
    - Environmental Risk Probability Analysis
- Inactive Class II Injection Well Tracking Report

3. Inspections:

- Wells Requiring Inspections
- Inspections Performed (Incident Report Example)
- Failed Inspections Req Remedial Action
- List of Active Rigs Showing Last BOP Inspection Date
- Inspection Fail Codes Report

4. Violations:

- Compliance Enforcement and Violation Comprehensive Report
- Enforcement Status Report (Multiple Wells)

5. Reference Tables:

- Company Name and Address List
- List of Bonds
- Wells Covered by Each Bond
- Oil and Gas Fields List
- Geologic Formations List
- List of Pools
- Rigs
- Counties List

COMPREHENSIVE WELL REPORT

Report Description

This report lists all well construction and well history data stored in the system for a specified well. If a well has multiple sidetracks and completions, the report options allow for one or all sidetracks and completions to be listed for the wellbore.

RBDMS Report Name: rptWellComp, rptWellPool, rptFormTops, rptStrings, rptStringPipe, rptCement, rptCementCls, rptPerfs, rptZones, rptZoneFmtn, rptLogs, rptWellHistry

API Well# **26-001-00001-02-00** Type **Gas Storage - S** Cat **Development - D** Stat **Active Injection - A**

Cnty Nm **Adams** - Cmpl **Single Completion - S** WI Permit **900001**

Oper # **1007.01 Shell Western E&P Inc** Mult Latrl

Driller # **1008.03 Texaco Exploration and Product**

Well Nm **D. Henerson No. 1** Srce **Remote Sensing (Pho**

Wh Lctn **12 121.5 N 111.5 E 1ST SWSWSW** Slant **Vertical - V**

200 Feet from the **N** Line **234** Feet from the **E** Line Basin **Appalachian Basin - 1**

Latitude **25.462500** Longitud **27.100000**

WH State Plane Coordinates Zone X Y **0**

Bh Lctn **0 0.0 0.0** **0** Feet from the Line **0** Feet from the Line

Latitude **0.000000** Longitd **0.000000** Bearing Dist **0** from WH

BH State Plane Coordinates Zone X Y **0**

Field No **100002 High Mountain Resort West** Pools **2 Oklahoma City Deep**

Obj Fmtn **TULSA** **TULSA OKLAHOMA EXPANDED** **1 Very Permeable**

Status Dt	1/1/90
Prmt App	2/15/90
Prmt Exp	2/15/95
Spudded	3/2/90
TD Rchd	5/8/90
Cmpltd	5/15/90
1st Prod	7/1/90
1st Inj	
Auth Trs	6/22/90
Plug Pln	1/1/90
P/A	

ELEVATION	
KB:	12
DF:	12
Gr:	8

Const **Derrick**	Meas	TVD
Kickoff		0
Plug Back	0	2000
Hole	4000	5000

Comments Example data used for testing RBDMS

Dt Comp Rpt Rc **9/9/90** Lse# **123456** Org Opr **1000.02 Amoco Production Company**

Dt End Confidntl **9/9/91** Dist - OrgTyp **Enhanced Oil** OrgCat **Other - O** Samp Req? ☒

Dir Survey	Drilling Unit	Production	Frequency	Water Disposal
Run ☒	Acres **640**	Class	GOR **0**	Method **Injection - Commerc**
Recvd ☒	Desc	Method **Gas Lift**	Idle Rpt **0**	API WI#
				Facility

H2S? ☒ Open Pit ☒ WH Pro Area ☒ Hydro? **Y** Lvl Prot **4** Dt Lvl Dtr **11/11/94**

Cathodic **No Cathodic Protecti** Surf Owr **Private - P**

Commingled	Mnrl Intrt	Lease Numbers
Dwn Hole ☒	Fed ☒	Fed **US9000291**
At Surf ☐	Indian ☐	BIA **RMD90921**
Dt Srf Ap	State ☐	St **MSL908212**

Ref Tp **Derrick Flo** Sls Cd Atg Grp Dr St

Fmtn Code	Formation Name	Top	Mhd	Mod Dt
DSND	DAKOTA 'D' SAND	100	S	12/5/94
MORRSN	MORRISON	200	L	8/15/94
KANSAS	KANSAS CITY	8000	L	12/2/94
TULSA	TULSA OKLAHOMA EXPANDED	11500	L	12/2/94
AVONPRK	AVON PARK FRACTURED DOLOMITE	12000	L	12/2/94

UIC Permit Rule Auth ☐ Class **Enhanced Recov** Lst Complnc Rvw **9/19/93** Rsit **Adequate - A**

EPA Prmt **MSPR0020021** Commercial ☐ Nw/Cnvt **New - N** Date Operator Notified of IMIT Requirement **11/2/94**

Maximum Allowable	
Rate	1414
Inj Press	900
IMIT Req Tst Press	900

Annulus Pressure Monitoring			
Dt Apprvd			
Min. Req.	50	SG of Fluid	1
Typ Fluid	**Brine - BRN**		

Water Analysis			
Date	1/1/94		
Inj Fld	**Fresh Water - FW**		
SG Inj	1.1	PH Inj	7
Corr Inj			

Frequency		Next Dt
EMIT	12	9/9/94
IMIT	12	12/12/95
Monit Rpt	3	
Annlus Mon	- 1	

Continuation of Well **26-001-00001-02-00** Well Nm **D. Henerson No. 1**

Casing Strings and Pipes

Type	Diam	Hole Sz	Top	Bot	Set Dt	Mod Dt	Gr	Lgth	Wt
COND	16	20	0	450	2/2/90	1/25/95	K-55	150	32
HOL1		20	0	475		1/25/95			
HOL2		15.5	0	2450		1/25/95			
HOL3		15	175	6100		1/25/95			
HOL4		9.625	6100	12000		1/25/95			
I1	13.625	15	0	6000	3/21/90	1/25/95	C-75	8000	22
PKR	8.625		8800	8820		1/25/95			
PKR	8.625		10000	10030		1/25/95			
PROD	8.625	9.625	0	12000	5/1/90	12/2/94	HC-95	8000	18
							N-80	4000	18.5
							Q-125	200	22
SURF	14	15.5	0	2400		1/25/95	K-55	400	15
T1	2.5		0	11189		1/25/95	J-55	9989	9
T2	1.5		0	8890		1/25/95	K-55	8890	7

Cemented Intervals and Class of Cement

Csg Stg	Bot	Top	Meth	Cmntd Dt	Mod Dt	Cls	Sacks	Dnsty
COND	475	0	T	2/2/90	1/25/95	A	200	15.6
I1	6100	2096	M	3/21/90	1/25/95	A	200	15.6
						H	500	15.8
PROD	12000	7830	M	5/1/90	12/2/94	D	750	15.6
						H	500	15.6
						RP	200	15.6
SURF	2450	0	M	4/4/95	1/25/95	A	600	16

Perforated Intervals

Tp MD	Bt MD	Tp TVD	Bt TVD	Perf Dt	Shts	Sqz Dt	Mod Dt	Comments
9100	9200	9100	9200	5/20/90	40		1/25/95	
11800	11980	11800	11980	5/5/90	20		1/25/95	

Zones and Zone Formations

Typ	Top	Bot	Lithology	TDS	USDW	Ex	Perm	Pors	Frc Pr	h	Press	Mod Dt	Fmtn Cd
A	5000	10500	int sand/shl	18000								12/2/94	
C	10500	11980	shale									12/2/94	
I	11000	11111										12/9/94	KANSAS
L	0	500	sand/ls	800	ANLY			15	1500	S	0	12/5/94	AVONPRK
O	500	5000	dolo/sand	12000								12/2/94	
P	11900	11980	sand	35000			20	22	3869	I	2270	12/2/94	BILLING
													TULSA

Logs

Run Dt	Recvd Dt	Sepia Dt	Digital Dt	Typ	Top	Bot	Mod Dt	Logs Run	Comments
5/30/90	6/6/90	6/6/90	6/6/90	LG	0	12500	12/2/94	GR,POROSITY,NEUTRON,CBL/VDL	

Well History

Typ Frm	Typ Wrk	Effect Dt	MI Fail - Cause		Sub Rpt	Rpt Rq Dt	Rpt Rcvd	Mod Dt	Comments
2	PLGBK	11/27/94	TBG	MECH	3	6/1/95		1/25/95	This is a test record with the purpose of performing internal testing using

WELL SUMMARY REPORT

Report Description

This report lists summary information on the wells selected by Location, Operator, County, or Field.

RBDMS Report Name: rptWELL_SUMMRY, rptWellPool

List of Wells - Summary Data

Wellhead Location: 13 12N 22W

API Well#		Type	Cat	Status	Status Dt
County		Compltn	WI Permit	Mult Latrl	Prmt App
Oper #					Prmt Exp
Driller #					Spudded
Well Nm					TD Rchd
WH Loctn				Source	Cmpltd
	feet from the Line		feet from the Line		1st Prod
Latitude	Longitude		Slant:		1st Inj
Field No				Basin:	Auth Trs
Obj Fmtn					Plug Pln
Pool					P/A

ELEVATION	
KB:	
DF:	
Gr:	

	Ref	Meas	TVD
Kickoff:			
Plug Back:			
Hole:			

Total Number of Wells in Report = **#Error**

Drilling Statistics

by Operator

Report Description

This report tabulates drilling statistics summarizing drilling activity in the state. The report can be run for any time period entered by the user including Monthly, Quarterly, Semi-Annually, and Annually. Tabulations include the number of new 'wildcat' and 'development' well permits issued during the period and the number of such wells completed as dry holes, oil wells, and gas wells. The report also includes categories for the number of permits issued and completions for wells other than wildcat and development wells. The number of completions during the period will not always equal the number of wells permitted as some completions may be for permits issued during a previous period and some of the wells that were permitted may not have been completed during the same period.

RBDMS Report Name: rptDrillStats ByOperator

Drilling Statistics for the Period: 1/1/85 thru 1/1/95

Operator	Wildcat Wells			Development Wells			Other Wells		Plugged
	Permits	Completions - Oil	Completions - Gas	Permits	Completions - Oil	Completions - Gas	Permits	Completions	Producers
Amerada Hess Corporation	0	0	0	0	0	0	0	0	0
Amoco Production Company	0	0	0	0	0	0	0	0	0
Chevron U.S.A., Inc.	0	0	0	0	0	0	0	0	0
Conoco Inc.	0	0	0	0	0	0	0	0	0
Conoco, Inc.	0	0	0	0	0	0	0	0	0
Exxon Company, U.S.A.	0	0	0	0	0	0	0	0	0
Exxon Corporation	0	0	0	0	0	0	0	0	0
Mobil Oil Corporation	0	0	0	0	0	0	0	0	0
Phillips Petroleum Company	0	0	0	0	0	0	0	0	0
Shell Western E&P Inc.	0	0	0	0	0	0	0	0	0
Shell Western E&P Inc	0	0	0	1	0	0	0	0	0
Texaco Exploration & Productio	0	0	0	0	0	0	0	0	0
Texaco Exploration and Product	0	0	0	0	0	0	0	0	0
State Totals	0	0	0	1	0	0	0	0	0

SOUR WELLS BY COUNTY REPORT

Report Description

This report lists Sour Gas (H2S) Wells by County.

RBDMS Report Name: rptSOUR_WELL, rptWellPool

Adams (County)

High Mountain Resort West (Oil Field)

26-001-00001-02-00 Type **S** Status **AI** Status Dt **1/1/90** Prmt **2/15/90** Cmpltd **5/15/**

Oper **1007.01 Shell Western E&P Inc** WH Loc **12 122 N 112 E 1ST SWSWSW**

Well Nm **D. Henerson No. 1** **200** Ft from the **N** Line **234** Ft from the **E** Line

Obj Fmtn **TULSA** **TULSA OKLAHOMA EXPANDED** Pool **2 Oklahoma City Deep**

1 Very Permeable

Subtotal of 1 H2S Wells in Adams

Total Number of H2S Wells = 1

LIST OF CONFIDENTIAL COMPLETION REPORTS (TIGHT HOLES)

Report Description

This report lists wells for which the operator has decided to invoke the privilege of confidentiality for completion reports and logs. The report lists wells that have been completed but for which completion data has not been delivered to the state or for which the state has not entered completion data into the system because of the confidential nature of the data. The purpose of this report is to ensure that completion reports and logs are received and data entered into the system after the period of confidentiality has expired.

RBDMS Report Name: rptConfidential

LIST OF CONFIDENTIAL COMPLETION REPORTS

Wells whose period of confidentiality expired prior to: 1/1/95

Confdntl Dt	API Number	Well Name / Operator	Well Type / County	Status / Field Name	Status Dt	Apprvl Dt	Spud Dt	ompltn Dt
					Legal Description			
9/9/91	26-001-00001-02-00	D. Henerson No. 1 Shell Western E&P Inc	GAS STORAGE Adams	Active Injection High Mountain Resort West	1/1/90	2/15/90	3/2/90	5/15/90
					12 121.5N 111.5E 1ST swswsw			

Grand Total of Wells for which the period of confidentiality has expired = 1

COMPLAINTS, SPILLS and INCIDENTS BY LOCATION REPORT

Report Description

This report lists information stored on Complaints, Spills, and other Incidents by Location.

RBDMS Report Name: rptIncidntLoc

COMPLAINTS, SPILLS and INCIDENTS by LOCATION

Location

Incident	Date	Type of Incident	Vol Spill	UIC Emr Rel gcy	Date/Time Notified	Date/Time of Response	Dt Resolvd	Action
	API Well No	Well Name / Comments	County		Oil/Gas Field		Company	

12 121.5N 111.5E 1ST SWSWSW

2		**Codes needed for INCIDENTS.TYP_IN**	**200**					**Codes needed**
	26-001-00001-02-00	D. Henerson No. 1	Adams		High Mountain Resort West		Shell Western E&P Inc	
1	**1/1/95**	**Incident Type Codes Must be Establishe**	**100**	**Y**	**1/1/95 9:00 AM**	**2/1/95 9:00 AM**	**2/25/95**	**INCIDENTS.ACTION**
	26-001-00001-02-00	D. Henerson No. 1	Adams		High Mountain Resort West		Shell Western E&P Inc	

Test of Incidents Form... Codes need to be set for each Incident and Action.

Grand Total of Complaints, Spills and Incidents = 2

LIST OF 'TA' WELLS PAST APPROVAL ENDING DATE

Report Description

This report lists all Temporarily Abandoned (TA) Wells that have not been approved or the Idle Well Report Approval Ending Date is prior to the Processing Date entereed by the User.

RBDMS Report Name: rptTAWells

24-Feb-95

'TA' Wells Past Approval Ending Date

Report Sorted by Operator Name for Date 1/1/95

API Number	Well Type	Status	Status Date	Cmpltd Date	Approval End Date	County Name	Well Cmpltn	Well Permit	Operator Name	Well Name

Location (S,T,R,P,Q) Latitude: Longitude: Slant:

Total Number of Wells Past the Approval End Date = #Error

Class II UIC Permit Data Report (Well by Well)

Report Description

This report presents detailed information pertaining to individual Class II UIC permits on a Well-by-Well basis.

RBDMS Report Name: <rpt_UICPermitSingle>

Permit Modification Codes: AL = Well ALteration; CS = Compliance Schedule; NI = New Information; NR = New Regulations; OT = Other Modification; PT = Permit Transfer

UIC Permit Data Report (Well by Well)

Run Date : 24-Feb-95

State UIC Permit Number	Date Appl Recd	Permit Type (I or A)	Date Appl Compl	Dt P/A Plan Apprvd	Date of Public Notice	Date Permit Issued	Date Permit Effective	Date Permit Denial	Date Permit Withdrw	Date Fee Collected	Amount Fee ($)	Affidavit Recvd (Y or N)	Board Petitind (Y or N)	Date Record Updated
MS60000	6/20/94	A	6/20/94					6/20/94		6/20/94	$100	Y	Y	11/18/94

Board Order #: 60220 **Permit Modification Type:** NI **Mod Code:** INJZ **Major or Minor Mod:** MAJ

Comment: Operator completed well and initially proposed injection zone did not have adequate capacity. Operator propsoed an alternate zone. This zone is currently a USDW and the operator was informed that the modification could not be granted unless the aquifer was exempted.

Permit Writer: Richmond, T.

State UIC Permit Number	Date Appl Recd	Permit Type (I or A)	Date Appl Compl	Dt P/A Plan Apprvd	Date of Public Notice	Date Permit Issued	Date Permit Effective	Date Permit Denial	Date Permit Withdrw	Date Fee Collected	Amount Fee ($)	Affidavit Recvd (Y or N)	Board Petitind (Y or N)	Date Record Updated
MS60000	5/5/94	A	5/5/94	5/5/94	5/5/94	6/5/94	6/5/94			5/5/94	$100	Y	N	1/25/95

Board Order #: 60000 **Permit Modification Type:** AL **Mod Code:** PKRD **Major or Minor Mod:** MAJ

Comment: This permit was applied for following the development of a new waterflood project in the eastern part of the county

Permit Writer: Richmond, T.

Permit Modification Codes: AL = Well ALteration; CS = Compliance Schedule; NI = New Information; NR = New Regulations; OT = Other Modification; PT = Permit Transfer

AOR COMPREHENSIVE TRACKING REPORT

Report Description

This report lists a summation of Area of Review tracking data as stored in the AOR Table. The report provides information on the type of AOR study, radius of pressure influence, as well as information pertaining to wells identified within the AOR study area.

RBDMS Report Name: <rpt_AORTracking>

AOR Comprehensive Tracking Report

Run Date: *28-Dec-94*

AOR No	API Well No.	Operator Number	Well Name and Number	Wellhead Location (PM, Quarter, Section, Tnsp, Rng)
9	26-002-00019-00-00			, , Sec. , T , R

Yes, UIC Permit No.: _____

Multiple Wells? No

If No, API Well No.: 26-002-00019-00-00

Dt Appl. Received: 9/9/92 **Rad. of AOR:** 0.5 **Inventory Done?:** Yes

Dt Appl. Complete: 9/9/92 **Dt Rad. Press Calc:** 9/9/92 **Topo Map?:** Yes

Dt Appl. Approved: 10/10/92 **Rad. Pres. Influence:** 0.1 **AOR Variance?:** No

Dt Rec Updated: 11/21/94 **WHP Area?:** No

Wells Statistics

	Total Wells in AOR	Total Deffective Wells	Wells Requiring Corr. Act	Wells Penetrating Inj. Zone
Abondoned Well:	10	2	2	5
Not Abondoned:	10	2	2	5

Water Well Information

No. Public Use: 1

Drinking Water: 3

Investigations

asing Repaired : 3 **No. Wells Plugged:** 1

Other CA: 4 **No. Wells Replugged :** 1

Comments

AOR Comprehensive Tracking Report

Run Date: 28-Dec-94

AOR No	API Well No.	Operator Number	Well Name and Number	Wellhead Location (PM, Quarter, Section, Tnsp, Rng)
14				, , Sec. , T , R

Yes, UIC Permit No.: MS60001

Multiple Wells? Yes

If No, API Well No.: _____

Dt Appl. Received: 2/2/94 | Rad. of AOR: _____ | Inventory Done?: No

Dt Appl. Complete: _____ | Dt Rad. Press Calc: _____ | Topo Map?: No

Dt Appl. Approved: _____ | Rad. Pres. Influence: _____ | AOR Variance?: No

Dt Rec Updated: 11/28/94 | WHP Area?: No

Wells Statistics

	Total Wells in AOR	Total Deffective Wells	Wells Requiring Corr. Act	Wells Penetrating Inj. Zone
Abondoned Well:				
Not Abondoned:				

Water Well Information

No. Public Use: _____

Drinking Water: _____

Investigations

asing Repaired : _____ No. Wells Plugged: _____

Other CA: _____ No. Wells Replugged : _____

Comments

AOR Comprehensive Tracking Report

Run Date: *28-Dec-94*

AOR No	API Well No.	Operator Number	Well Name and Number	Wellhead Location (PM, Quarter, Section, Tnsp, Rng)
8	26-001-00001-02-01	1000.01	D. Henderson No. 2	1ST , NENENE , Sec. 1 , T 12 S , R 14 E

Yes, UIC Permit No.: _____

Multiple Wells? No

If No, API Well No.: 26-001-00001-02-01

Dt Appl. Received: 11/11/93
Dt Appl. Complete: 12/12/93
Dt Appl. Approved: 2/2/94
Dt Rec Updated: 12/3/94

Rad. of AOR: 0.5
Dt Rad. Press Calc: 1/6/94
Rad. Pres. Influence: 0.2

Inventory Done?: Yes
Topo Map?: Yes
AOR Variance?: Yes
WHP Area?: Yes

Wells Statistics

	Total Wells in AOR	Total Deffective Wells	Wells Requiring Corr. Act	Wells Penetrating Inj. Zone
Abondoned Well:	1	0	0	1
Not Abondoned:	1	0	0	1

Water Well Information

No. Public Use: 2

Drinking Water: 0

Investigations

asing Repaired : 0 **No. Wells Plugged:** 0

Other CA: 0 **No. Wells Replugged :** 0

Comments

AOR Comprehensive Tracking Report

Run Date: 28-Dec-94

AOR No	API Well No.	Operator Number	Well Name and Number	Wellhead Location (PM, Quarter, Section, Tnsp, Rng)
12	26-034-00063-00-00	1000.02	F. Hillie No. 1	1st ,NENWN ,Sec. 12 , T 0 N , R 22 W

Yes, UIC Permit No.: _____

Multiple Wells? No

If No, API Well No.: 26-034-00063-00-00

Dt Appl. Received: 1/1/94
Dt Appl. Complete: 4/4/94
Dt Appl. Approved: 9/9/94
Dt Rec Updated: 11/21/94

Rad. of AOR: 0.5
Dt Rad. Press Calc: 5/5/94
Rad. Pres. Influence: 0.5

Inventory Done?: Yes
Topo Map?: Yes
AOR Variance?: No
WHP Area?: Yes

Wells Statistics

	Total Wells in AOR	Total Deffective Wells	Wells Requiring Corr. Act	Wells Penetrating Inj. Zone
Abondoned Well:	9999	9999	9999	9999
Not Abondoned:	9999	9999	9999	9999

Water Well Information

No. Public Use: 9999

Drinking Water: 9999

Investigations

asing Repaired : 9999 No. Wells Plugged: 9999

Other CA: 9999 No. Wells Replugged : 9999

Comments

AOR Comprehensive Tracking Report

Run Date: *28-Dec-94*

AOR No	API Well No.	Operator Number	Well Name and Number	Wellhead Location (PM, Quarter, Section, Tnsp, Rng)
10	26-012-00784-00-00	1008.01	B. Clinton No. 4	1ST , SWNESE , Sec. 14 , T 14 N , R 14 E

Yes, UIC Permit No.: _____

Multiple Wells? No

If No, API Well No.: 26-012-00784-00-00

Dt Appl. Received: 2/2/92 | Rad. of AOR: 0.5 | Inventory Done?: Yes

Dt Appl. Complete: 2/2/92 | Dt Rad. Press Calc: 3/8/92 | Topo Map?: Yes

Dt Appl. Approved: 4/4/92 | Rad. Pres. Influence: 0.47 | AOR Variance?: No

Dt Rec Updated: 12/3/94 | WHP Area?: No

Wells Statistics

	Total Wells in AOR	Total Deffective Wells	Wells Requiring Corr. Act	Wells Penetrating Inj. Zone
Abondoned Well:	20	11	11	20
Not Abondoned:	18	1	1	18

Water Well Information

No. Public Use: 4

Drinking Water: 8

Investigations

asing Repaired : 2 | No. Wells Plugged: 1

Other CA: 8 | No. Wells Replugged : 1

Comments

Listing of Wells Identified in the AOR Study Area

Report Description

This report presents identification information for the subject well being studied as part of an Area of Review (AOR) Investigation and then lists the various well or wells that RBDMS has identified within the AOR study area (based on Latitude/Longitude). For wells to be included on this list, they must first be maintained within the RBDMS system and have latitude/longitude location specification. Wells within the study area will not be identified from Section, Township, Range data

RBDMS Report Name: <rpt_AORWellInAORList + rpt_AORWellsInAORListSub>

Listing of Wells Identified in the AOR Study Area

Run Date: *28-Dec-94*

AOR No.	API Well Number	UIC Permit	Operator Name	Field Name	Formation Name	AOR Radious
8	26-001-00001-02-01	MS60000	Amoco Production Company	Northwest Cabin Creek Est		0.5

Wells included in AOR (Shown Below):

API Well Number	Well Permit No.	Well Name and Number	Well Type	Category	Wellhead Location (PM, Quarter, Section, Twnsp, Range)
26-198-77777-00-00	900055	Big One No. 20-2	EOR		1ST , NWNENW , Sec. 33 , T 22 N , R 23 W

Well Status	DT Status	Compl	Slant	Basin	Field Name	Formation Name	Dt. Updated
AI	9/9/90	SNGL	V	0	Very Very Good Show		12/3/94

API Well Number	Well Permit No.	Well Name and Number	Well Type	Category	Wellhead Location (PM, Quarter, Section, Twnsp, Range)
26-198-77778-00-00	900056	True No. 20	EOR		1ST , NENWNE , Sec. 33 , T 22 N , R 23 W

Well Status	DT Status	Compl	Slant	Basin	Field Name	Formation Name	Dt. Updated
AI	9/9/90	SNGL	V	0	Very Very Good Show		12/3/94

API Well Number	Well Permit No.	Well Name and Number	Well Type	Category	Wellhead Location (PM, Quarter, Section, Twnsp, Range)
26-198-77779-00-00	900057	Lot A Luck No. 200-20	EOR		1ST , NWSWNE , Sec. 33 , T 22 N , R 23 W

Well Status	DT Status	Compl	Slant	Basin	Field Name	Formation Name	Dt. Updated
AI	9/9/90	SNGL	V	0	Very Very Good Show		12/3/94

Listing of Wells Identified in the AOR Study Area

Run Date: 28-Dec-94

AOR No.	API Well Number	UIC Permit	Operator Name	Field Name	Formation Name	AOR Radious
9						0.5

Wells included in AOR (Shown Below):

API Well Number	Well Permit No.	Well Name and Number	Well Type	Category	Wellhead Location (PM, Quarter, Section, Twnsp, Range)
Well Status	DT Status	Compl.	Slant	Basin	Field Name	Formation Name	Dt. Updated
26-198-77776-00-00	900054	D. Arthur No. 40	EOR		1ST , SESWSE , Sec. 33 , T 22 N , R 23 W
AI	9/9/90	SNGL	V	0	Very Very Good Show		12/3/94
26-198-77775-00-00	900053	P. Roberts No. 30+	EOR		1ST , SWSESW , Sec. 33 , T 22 N , R 23 W
AI	8/8/90	SNGL	V	0	Very Very Good Show		12/3/94
26-198-77774-00-00	900052	P. Roberts No. 10-10	EOR		1ST , SESESE , Sec. 33 , T 12 N , R 23 W
AI	8/8/90	SNGL	V	0	Very Very Good Show		12/3/94
26-198-77773-00-00	900051	A. Lincoln No. 16	EOR		1ST , NENENE , Sec. 33 , T 12 N , R 23 W
AI	8/8/90	SNGL	V	0	Very Very Good Show		12/3/94
26-198-77772-00-00	900050	S. Adams No. 2	EOR		1ST , NWNWNW , Sec. 33 , T 11 N , R 23 W
AI	8/8/90	SNGL	V	0	Very Very Good Show		12/3/94
26-198-77771-00-00	900049	Backbone No. 271	EOR		1ST , SWSWSW , Sec. 33 , T 11 N , R 23 W
AI	9/9/90	SNGL	V	0	Very Very Good Show		12/3/94
26-198-88888-00-00	900065	B. Freeman No. 10	SWD		1ST , SWSWSW , Sec. 33 , T 15 N , R 23 W
AI	9/9/90	SNGL	V	0	Very Very Good Show	NIOBRARA	12/3/94
26-198-88889-00-00	900066	D. Arthur No. 20-1	SWD		1ST , CSESE , Sec. 33 , T 22 N , R 23 W
AI	9/9/90	SNGL	V	0	Very Very Good Show		12/3/94

26-198-88887-00-00	900064			D.Arthur No. 20-2		SWD	1ST	,	CSWSW	,	Sec.	33	,	T	22	N	,	R	23	W			
AI	9/9/90	SNGL	V	0		Very Very Good Show																12/3/94	
26-198-88886-00-00	900063			B. Bryson No. 20-1		EOR	1ST	,	SWSENE	,	Sec.	33	,	T	22	N	,	R	23	W			
AI	9/9/90	SNGL	V	0		Very Very Good Show																12/3/94	
26-198-88885-00-00	900062			T. Baker No. 20-1		EOR	1ST	,	NENENW	,	Sec.	33	,	T	22	N	,	R	23	W			
AI	9/9/90	SNGL	V	0		Very Very Good Show																12/3/94	
26-198-88884-00-00	900061			M. Paque No. 20-1		EOR	1ST	,	SWSWNE	,	Sec.	33	,	T	22	N	,	R	23	W			
AI	9/9/90	SNGL	V	0		Very Very Good Show																12/3/94	

Listing of Wells Identified in the AOR Study Area

Run Date: *28-Dec-94*

AOR No.	API Well Number	UIC Permit	Operator Name	Field Name	Formation Name	AOR Radious
10	26-012-00784-00-00	MS60000	Texaco Exploration & Productio	Sooner Trend Expanded		0.5

Wells included in AOR (Shown Below):

API Well Number	Well Permit No.	Well Name and Number	Well Type	Category	Wellhead Location (PM, Quarter, Section, Twnsp, Range)
26-198-88883-00-00	900060	Niagra No. 20-18	EOR		1ST , NWNWSE , Sec. 33 , T 22 N , R 23 W

Well Status	DT Status	Compl	Slant	Basin	Field Name	Formation Name	Dt. Updated
AI	9/9/90	SNGL	V	0	Very Very Good Show		12/3/94

API Well Number	Well Permit No.	Well Name and Number	Well Type	Category	Wellhead Location (PM, Quarter, Section, Twnsp, Range)
26-198-88882-00-00	900059	Butte No. 20-5	EOR		1ST , NENESW , Sec. 33 , T 22 N , R 23 W

Well Status	DT Status	Compl	Slant	Basin	Field Name	Formation Name	Dt. Updated
AI	9/9/90	SNGL	V	0	Very Very Good Show		12/3/94

API Well Number	Well Permit No.	Well Name and Number	Well Type	Category	Wellhead Location (PM, Quarter, Section, Twnsp, Range)
26-198-88881-00-00	900058	Freemont No. 20-1	EOR		1ST , SWNESW , Sec. 33 , T 22 N , R 23 W

Well Status	DT Status	Compl	Slant	Basin	Field Name	Formation Name	Dt. Updated
AI	9/9/90	SNGL	V	0	Very Very Good Show		12/3/94

Listing of Wells Identified in the AOR Study Area

Run Date: 28-Dec-94

AOR No.	API Well Number	UIC Permit	Operator Name	Field Name	Formation Name	AOR Radious
11	26-016-00129-00-00	MS60001	Texaco Exploration & Productio	Bettin' on the Big One		0.51

Wells included in AOR (Shown Below):

Wells included in AOR (Shown Below):

Listing of Wells Identified in the AOR Study Area

Run Date: 28-Dec-94

AOR No.	API Well Number	UIC Permit	Operator Name	Field Name	Formation Name	AOR Radious
12	26-034-00063-00-00	MS60000	Amoco Production Company	Sooner Trend Expanded	MORRISON	0.5

Wells included in AOR (Shown Below):

Listing of Wells Identified in the AOR Study Area

Run Date: *28-Dec-94*

AOR No.	API Well Number	UIC Permit	Operator Name	Field Name	Formation Name	AOR Radious
14						

Wells included in AOR (Shown Below):

Mechanical Integrity Test Report

Casing or Annulus Pressure Test

Mississippi State Oil and Gas Board
500 Greymont Avenue, Suite E
Jackson, Mississippi 39202

State Inspector:_____ Date:_____/_____/_____ Start Time:_____am/pm

Operator Representative(s):_____

Others Presents:_____

General Well Data and Prevoius MIT information

API Well No.: _____ Location: _____ Sec. _____ Township _____ Range _____

Operator Name/Number: _____

Well Name/Number: _____

Field name: _____ County: _____

Date Last MIT: _____ Last Test Result: _____ Type of Test Used: _____ Reason: _____

Corrective Action Due: _____ Dt CA Complete: _____

Cause of Failure (Last Test): _____ Type of Failure (Last Test): _____

Well Status at Last Test: _____ Inj. Rate and Pressure During Last Test: _____ bpd and _____ psig

Required Minimum Test Pressure: _____ psig

Pkr Depth: _____ feet GL Top of Perfs: _____ feet GL

Casing/Annulus Pressure Test Results

Time (minutes)	TEST # 1 (psig)	Time (minutes)	TEST #2 (psig)
0		0	
10		10	
20		20	
30		30	
Result (circle)	**PASS/FAIL**	**Result (circle)**	**PASS/FAIL**
Tubing Presure		Tubing Presure	

Current Well Data and Information for Testing

Type of Test Used:_____ Reason For Test:_____

Cause of Failure (this test):_____ Type of Failure (this test):_____

Well Status During Test: Injection / Shut-in

Injection Rate During Test:_____bpd Injection Pressure During Test:_____psig

Pkr Depth:_____ feet GL

Signature of State Inspector/Representative:
Signature of Operator Representative:

See back of page for any additional comments

Additional Comments for Mechanical Integrity Test

OFFICE USE ONLY: Compliance Followup

Technical/Compliance Reviewer:_____ Date:_____

Do you agree that well passed/failed the test [ ] YES [ ] NO

Were the minimum testing requirements achieved? [ ] YES [ ] NO

Were possible violations identified? [ ] YES [ ] NO

Is additional followup required? [ ] YES [ ] NO

Follow-up required: [ ] Data Entry [ ] Compliance [ ] Hard Copy Filing [ ] 2nd Data Entry

Mechanical Integrity Test Report

Casing or Annulus Pressure Test

Mississippi State Oil and Gas Board
500 Greymont Avenue, Suite E
Jackson, Mississippi 39202

State Inspector:_____ Date:____/____/____ Start Time:_____am/pm

Operator Representative(s):_____

Others Presents:_____

General Well Data and Prevoius MIT information

API Well No.: _____ Location: 1ST CSWSW Sec. 33 Township 22 N Range 23 W

Operator Name/Number: Texaco Exploration & Productio 1008.01

Well Name/Number: D.Arthur No. 20-2

Field name: Very Very Good Show County: Broward

Date Last MIT: _____ Last Test Result: _____ Type of Test Used: _____ Reason: _____

Corrective Action Due: _____ Dt CA Complete: _____

Cause of Failure (Last Test): _____ Type of Failure (Last Test): _____

Well Status at Last Test: _____ Inj. Rate and Pressure During Last Test: _____ bpd and _____ psig

Required Minimum Test Pressure: 565 psig

Pkr Depth: _____ feet GL Top of Perfs: _____ feet GL

Casing/Annulus Pressure Test Results

Time (minutes)	TEST # 1 (psig)	Time (minutes)	TEST #2 (psig)
0		0	
10		10	
20		20	
30		30	
Result (circle)	**PASS/FAIL**	**Result (circle)**	**PASS/FAIL**
Tubing Presure		Tubing Presure	

Current Well Data and Information for Testing

Type of Test Used:_____ Reason For Test:_____

Cause of Failure (this test):_____ Type of Failure (this test):_____

Well Status During Test: Injection / Shut-in

Injection Rate During Test:_____bpd Injection Pressure During Test:_____psig

Pkr Depth:_____ feet GL

Signature of State Inspector/Representative:
Signature of Operator Representative:

See back of page for any additional comments

Additional Comments for Mechanical Integrity Test

OFFICE USE ONLY: Compliance Followup

Technical/Compliance Reviewer:_____ Date:_____

Do you agree that well passed/failed the test [ ] YES [ ] NO

Were the minimum testing requirements achieved? [ ] YES [ ] NO

Were possible violations identified? [ ] YES [ ] NO

Is additional followup required? [ ] YES [ ] NO

Follow-up required: [ ] Data Entry [ ] Compliance [ ] Hard Copy Filing [ ] 2nd Data Entry

Mechanical Integrity Test Report

Casing or Annulus Pressure Test

Mississippi State Oil and Gas Board
500 Greymont Avenue, Suite E
Jackson, Mississippi 39202

State Inspector:_____ Date:_____/_____/_____ Start Time:_____am/pm

Operator Representative(s):_____

Others Presents:_____

General Well Data and Prevoius MIT information

API Well No.: _____ Location: 1ST SWSWSW Sec. 14 Township 11 N Range 22 W

Operator Name/Number: Texaco Exploration & Productio 1008.01

Well Name/Number: R. Gibson No. 1

Field name: Sooner Trend Expanded County: Purple

Date Last MIT: _____ Last Test Result: _____ Type of Test Used: _____ Reason: _____

Corrective Action Due: _____ Dt CA Complete: _____

Cause of Failure (Last Test): _____ Type of Failure (Last Test): _____

Well Status at Last Test: _____ Inj. Rate and Pressure During Last Test: _____ bpd and _____ psig

Required Minimum Test Pressure: 600 psig

Pkr Depth: _____ feet GL Top of Perfs: _____ feet GL

Casing/Annulus Pressure Test Results

Time (minutes)	TEST # 1 (psig)	Time (minutes)	TEST #2 (psig)
0		0	
10		10	
20		20	
30		30	
Result (circle)	**PASS/FAIL**	**Result (circle)**	**PASS/FAIL**
Tubing Presure		Tubing Presure	

Current Well Data and Information for Testing

Type of Test Used:_____ Reason For Test:_____

Cause of Failure (this test):_____ Type of Failure (this test):_____

Well Status During Test: Injection / Shut-in

Injection Rate During Test:_____bpd Injection Pressure During Test:_____psig

Pkr Depth:_____ feet GL

Signature of State Inspector/Representative:
Signature of Operator Representative:

See back of page for any additional comments

Additional Comments for Mechanical Integrity Test

OFFICE USE ONLY: Compliance Followup

Technical/Compliance Reviewer:_____ Date:_____

Do you agree that well passed/failed the test [ ] YES [ ] NO

Were the minimum testing requirements achieved? [ ] YES [ ] NO

Were possible violations identified? [ ] YES [ ] NO

Is additional followup required? [ ] YES [ ] NO

Follow-up required: [ ] Data Entry [ ] Compliance [ ] Hard Copy Filing [ ] 2nd Data Entry

Mechanical Integrity Test Report

Casing or Annulus Pressure Test

Mississippi State Oil and Gas Board
500 Greymont Avenue, Suite E
Jackson, Mississippi 39202

State Inspector:_____ Date:_____/_____/_____ Start Time:_____am/pm

Operator Representative(s):_____

Others Presents:_____

General Well Data and Prevoius MIT information

API Well No.: _____ Location: 1ST SWSWSW Sec. 14 Township 11 N Range 22 W

Operator Name/Number: Texaco Exploration & Productio 1008.01

Well Name/Number: R. Gibson No. 1

Field name: Sooner Trend Expanded County: Purple

Date Last MIT: _____ Last Test Result: _____ Type of Test Used: _____ Reason: _____

Corrective Action Due: _____ Dt CA Complete: _____

Cause of Failure (Last Test): _____ Type of Failure (Last Test): _____

Well Status at Last Test: _____ Inj. Rate and Pressure During Last Test: _____ bpd and _____ psig

Required Minimum Test Pressure: 600 psig

Pkr Depth: _____ feet GL Top of Perfs: _____ feet GL

Casing/Annulus Pressure Test Results

Time (minutes)	TEST # 1 (psig)	Time (minutes)	TEST #2 (psig)
0		0	
10		10	
20		20	
30		30	
Result (circle)	**PASS/FAIL**	**Result (circle)**	**PASS/FAIL**
Tubing Presure		Tubing Presure	

Current Well Data and Information for Testing

Type of Test Used:_____ Reason For Test:_____

Cause of Failure (this test):_____ Type of Failure (this test):_____

Well Status During Test: Injection / Shut-in

Injection Rate During Test:_____bpd Injection Pressure During Test:_____psig

Pkr Depth:_____ feet GL

Signature of State Inspector/Representative:
Signature of Operator Representative:

See back of page for any additional comments

Additional Comments for Mechanical Integrity Test

OFFICE USE ONLY: Compliance Followup

Technical/Compliance Reviewer:_____ Date:_____

Do you agree that well passed/failed the test	[ ] YES	[ ] NO
Were the minimum testing requirements achieved?	[ ] YES	[ ] NO
Were possible violations identified?	[ ] YES	[ ] NO
Is additional followup required?	[ ] YES	[ ] NO

Follow-up required: [ ] Data Entry [ ] Compliance [ ] Hard Copy Filing [ ] 2nd Data Entry

Mechanical Integrity Test Report

Casing or Annulus Pressure Test

Mississippi State Oil and Gas Board
500 Greymont Avenue, Suite E
Jackson, Mississippi 39202

State Inspector:_____ Date:_____/_____/_____ Start Time:_____am/pm

Operator Representative(s):_____

Others Presents:_____

General Well Data and Prevoius MIT information

API Well No.: _____ Location: 1ST SWSWSW Sec. 14 Township 11 N Range 22 W

Operator Name/Number: Texaco Exploration & Productio 1008.01

Well Name/Number: R. Gibson No. 2

Field name: Southwest Pennel Waters County: Purple

Date Last MIT: _____ Last Test Result: _____ Type of Test Used: _____ Reason: _____

Corrective Action Due: _____ Dt CA Complete: _____

Cause of Failure (Last Test): _____ Type of Failure (Last Test): _____

Well Status at Last Test: _____ Inj. Rate and Pressure During Last Test: _____ bpd and _____ psig

Required Minimum Test Pressure: 600 psig

Pkr Depth: _____ feet GL Top of Perfs: _____ feet GL

Casing/Annulus Pressure Test Results

Time (minutes)	TEST # 1 (psig)	Time (minutes)	TEST #2 (psig)
0		0	
10		10	
20		20	
30		30	
Result (circle)	**PASS/FAIL**	**Result (circle)**	**PASS/FAIL**
Tubing Presure		Tubing Presure	

Current Well Data and Information for Testing

Type of Test Used:_____ Reason For Test:_____

Cause of Failure (this test):_____ Type of Failure (this test):_____

Well Status During Test: Injection / Shut-in

Injection Rate During Test:_____bpd Injection Pressure During Test:_____psig

Pkr Depth:_____ feet GL

Signature of State Inspector/Representative:
Signature of Operator Representative:

See back of page for any additional comments

Additional Comments for Mechanical Integrity Test

OFFICE USE ONLY: Compliance Followup

Technical/Compliance Reviewer:_____ Date:_____

Do you agree that well passed/failed the test [ ] YES [ ] NO

Were the minimum testing requirements achieved? [ ] YES [ ] NO

Were possible violations identified? [ ] YES [ ] NO

Is additional followup required? [ ] YES [ ] NO

Follow-up required: [ ] Data Entry [ ] Compliance [ ] Hard Copy Filing [ ] 2nd Data Entry

Mechanical Integrity Test Report

Casing or Annulus Pressure Test

Mississippi State Oil and Gas Board
500 Greymont Avenue, Suite E
Jackson, Mississippi 39202

State Inspector:_____ Date:_____/_____/_____ Start Time:_____am/pm

Operator Representative(s):_____

Others Presents:_____

General Well Data and Prevoius MIT information

API Well No.: _____ Location: 1ST SWSWSW Sec. 14 Township 11 N Range 22 W

Operator Name/Number: Texaco Exploration & Productio 1008.01

Well Name/Number: R. Gibson No. 2

Field name: Southwest Pennel Waters County: Purple

Date Last MIT: _____ Last Test Result: _____ Type of Test Used: _____ Reason: _____

Corrective Action Due: _____ Dt CA Complete: _____

Cause of Failure (Last Test): _____ Type of Failure (Last Test): _____

Well Status at Last Test: _____ Inj. Rate and Pressure During Last Test: _____ bpd and _____ psig

Required Minimum Test Pressure: 600 psig

Pkr Depth: _____ feet GL Top of Perfs: _____ feet GL

Casing/Annulus Pressure Test Results

Time (minutes)	TEST # 1 (psig)	Time (minutes)	TEST #2 (psig)
0		0	
10		10	
20		20	
30		30	
Result (circle)	**PASS/FAIL**	**Result (circle)**	**PASS/FAIL**
Tubing Presure		Tubing Presure	

Current Well Data and Information for Testing

Type of Test Used:_____ Reason For Test:_____

Cause of Failure (this test):_____ Type of Failure (this test):_____

Well Status During Test: Injection / Shut-in

Injection Rate During Test:_____bpd Injection Pressure During Test:_____psig

Pkr Depth:_____ feet GL

Signature of State Inspector/Representative:
Signature of Operator Representative:

See back of page for any additional comments

Additional Comments for Mechanical Integrity Test

OFFICE USE ONLY: Compliance Followup

Technical/Compliance Reviewer:_____ Date:_____

Do you agree that well passed/failed the test [ ] YES [ ] NO

Were the minimum testing requirements achieved? [ ] YES [ ] NO

Were possible violations identified? [ ] YES [ ] NO

Is additional followup required? [ ] YES [ ] NO

Follow-up required: [ ] Data Entry [ ] Compliance [ ] Hard Copy Filing [ ] 2nd Data Entry

Internal Mechanical Integrity Assessment Report for Wells Using Annulus Pressure Monitoring (APM)

Report Description

This report presents tracking information pertaining to wells using annulus pressure monitoring either in conjunction with another internal mechanical integrity test or as a stand-alone internal mechanical integrity test, including minimum required annulus pressures.

RBDMS Report Name: <rpt_APMstatus>

Legend

A = Adequate Rec = Recording LAR = Last APM Result

D = Defficient Rpt = Reporting **NOTE: Date APM Confirmed or Tested Corresponds to last Date entered in IMIT Form for this Well/Test.**

Internal Mechanical Integrity Assesment Report
For Wells Using Annulus Pressure Monitoring (APM)

Run Date: *28-Dec-94*

API Well Number / Well Name and Number	Operator Name	Date APM Apprd	APM Rec Freq	APM Rpt Freq	Next APM Report Due	Date APM Confirmd or Tested (see note)	Min. Req. Annulus Pressure	L A R	Date Record Updated
26-001-00001-02-01									
D. Henderson No. 2	Amoco Production Company	1/1/90	1	3	2/5/94	2/2/94	50		11/21/94
D. Henderson No. 2	Amoco Production Company	1/1/90	1	3	4/7/93	4/4/93	50	A	12/6/94
26-003-00001-00-00									
T. Gillespie No. 2	Amerada Hess Corporation	1/1/90	1	3	6/9/93	6/6/93	50	D	11/29/94
26-012-00784-00-00									
B. Clinton No. 4	Texaco Exploration & Productio	3/3/91	1	3	7/10/93	7/7/93	50	A	11/18/94
26-016-00129-00-00									
B. Clinton No. 22	Texaco Exploration & Productio	3/3/91	1	3	8/11/93	8/8/93	50	D	11/21/94
26-034-00063-00-00									
F. Hillie No. 1	Amoco Production Company	4/4/92	1	3	9/12/93	9/9/93	50	A	11/18/94
26-041-00092-00-00									
D. Eno No. 1	Shell Western E&P Inc	4/4/92	1	3	10/4/93	10/1/93	50	A	6/21/94
26-056-00001-00-00									
S. Belieu No. 2	Exxon Company, U.S.A.	9/9/90	1	3	3/18/80	3/15/80	50	A	11/18/94
26-154-01009-00-00									
D. Arthur No. 1	Conoco Inc.	9/9/88	1	3	2/12/89	2/9/89	50		6/15/94

Legend

A = Adequate Rec = Recording LAR = Last APM Result

D = Deficient Rpt = Reporting **NOTE: Date APM Confirmed or Tested Corresponds to last Date entered in IMIT Form for this Well/Test.**

Internal Mechanical Integrity Test Tracking Report

Report Description

This report presents tracking data and information pertaining to internal mechanical integrity tests performed on Class II injection wells.

RBDMS Report Name: <rpt_IMITtracking>

Legend: P = Pass, F = Fail

TEST METHODS: ADA = Ada Pressure Test; BTST = Braidenhead Test; DUAL = Dual Compl. Test; FLT = Fluid Level Test; FMTR = Flow Meter Test; GDAP = Gas Detector Annulus Pressure Test; IRTS = Internal RTS; ITAL = Temperature Anomaly; ITDL = Differential Temperature; NAPT = Annulus Pressure Test without Tubing; OIM = Other Internal MIT; SAMT = Std. Annulus Monitoring Test; SAPT = Standard Annulus Pressure Test; SPRT = Single Point Resistivity Test; Temp = Internal Temperature Log; WBIT = Water/Brine Interface Test; WIAT = Water-In-Annulus Test.

Internal Mechanical Integrity Tracking Report

Run Date: *28-Dec-94*

API Well Number	Operator Name	Well Name and Number	Required Test Pressure	Required Test Freq	Date Last IMIT	Reason for Test	Test Method Used	Test Rslt	Next IMIT Due
26-056-00001-00-00	Exxon Company, U.S.A.	S. Belieu No. 2	900	12	3/15/80	ANNTST	SAMT		7/7/95
Test Witnessed?:		**Comments:**							**Date Updated**
Inspector's Nm:									11/18/94
26-154-01009-00-00	Conoco Inc.	D. Arthur No. 1	600	12	2/9/89	INITAL	SAPT	A	12/12/95
Test Witnessed?:	N	**Comments:**							**Date Updated**
Inspector's Nm:									6/15/94
26-001-00001-02-01	Amoco Production Company	D. Henderson No. 2	900	12	4/4/93	5YRTST	WIAT	F	12/12/95
Test Witnessed?:	Y	**Comments:**	Test Pressure on this well continuously dropped throughout test. Allowed test to run for approx. 34 minutes just to see if pressure would ever stabilize at a lower pressure. It never did.						**Date Updated**
Inspector's Nm:	Smith, B.								12/6/94
26-003-00001-00-00	Amerada Hess Corporation	T. Gillespie No. 2	780	12	6/6/93	INITAL	BTST	F	12/12/95
Test Witnessed?:	N	**Comments:**							**Date Updated**
Inspector's Nm:									11/29/94

Legend: P = Pass, F = Fail

TEST METHODS: ADA = Ada Pressure Test; BTST = Braidenhead Test; DUAL = Dual Compl. Test; FLT = Fluid Level Test; FMTR = Flow Meter Test; GDAP = Gas Detector Annulus Pressure Test; IRTS = Internal RTS; ITAL = Temperature Anomaly; ITDL = Differential Temperature; NAPT = Annulus Pressure Test without Tubing; OIM = Other Internal MIT; SAMT = Std. Annulus Monitoring Test; SAPT = Standard Annulus Pressure Test; SPRT = Single Point Resistivity Test; Temp = Internal Temperature Log; WBIT = Water/Brine Interface Test; WIAT = Water-In-Annulus Test.

Internal Mechanical Integrity Tracking Report

Run Date: *28-Dec-94*

API Well Number	Operator Name	Well Name and Number	Required Test Pressure	Required Test Freq	Date Last IMIT	Reason for Test	Test Method Used	Test Rslt	Next IMIT Due
26-012-00784-00-00	Texaco Exploration & Productio	B. Clinton No. 4	350	12	7/7/93	LKDPTH	ADA	A	12/12/95
Test Witnessed?: Y	**Comments:**								**Date Updated** 11/18/94
Inspector's Nm: Thisisthebiggestname									
26-016-00129-00-00	Texaco Exploration & Productio	B. Clinton No. 22	900	12	8/8/93	OTHER	SAPT	A	12/12/95
Test Witnessed?: N	**Comments:**								**Date Updated** 11/21/94
Inspector's Nm:									
26-034-00063-00-00	Amoco Production Company	F. Hillie No. 1	300	24	9/9/93	5YRTST	ITAL	A	9/9/94
Test Witnessed?: N	**Comments:**								**Date Updated** 11/18/94
Inspector's Nm:									
26-041-00092-00-00	Shell Western E&P Inc	D. Eno No. 1	1200	12	10/1/93	OTHER	FMTR	A	9/9/94
Test Witnessed?: N	**Comments:**								**Date Updated** 6/21/94
Inspector's Nm:									

Legend: P = Pass, F = Fail

TEST METHODS: ADA = Ada Pressure Test; BTST = Braidenhead Test; DUAL = Dual Compl. Test; FLT = Fluid Level Test; FMTR = Flow Meter Test; GDAP = Gas Detector Annulus Pressure Test; IRTS = Internal RTS; ITAL = Temperature Anomaly; ITDL = Differential Temperature; NAPT = Annulus Pressure Test without Tubing; OIM = Other Internal MIT; SAMT = Std. Annulus Monitoring Test; SAPT = Standard Annulus Pressure Test; SPRT = Single Point Resistivity Test; Temp = Internal Temperature Log; WBIT = Water/Brine Interface Test; WIAT = Water-In-Annulus Test.

Internal Mechanical Integrity Tracking Report

Run Date: *28-Dec-94*

API Well Number	Operator Name	Well Name and Number	Required Test Pressure	Required Test Freq	Date Last IMIT	Reason for Test	Test Method Used	Test Rslt	Next IMIT Due
26-001-00001-02-01	Amoco Production Company	D. Henderson No. 2	900	12	2/2/94	LKDPTH	IRTS	A	12/12/95

Test Witnessed?: N **Comments:**

Inspector's Nm:

Date Updated 11/21/94

Legend: P = Pass, F = Fail

TEST METHODS: ADA = Ada Pressure Test; BTST = Braidenhead Test; DUAL = Dual Compl. Test; FLT = Fluid Level Test; FMTR = Flow Meter Test; GDAP = Gas Detector Annulus Pressure Test; IRTS = Internal RTS; ITAL = Temperature Anomaly; ITDL = Differential Temperature; NAPT = Annulus Pressure Test without Tubing; OIM = Other Internal MIT; SAMT = Std. Annulus Monitoring Test; SAPT = Standard Annulus Pressure Test; SPRT = Single Point Resistivity Test; Temp = Internal Temperature Log; WBIT = Water/Brine Interface Test; WIAT = Water-In-Annulus Test.

External MI Well Failure Summary Report

Report Description

This report presents information pertaining to External Mechanical Integrity Test Failures and includes compliance tracking dates required for well repairs or other corrective

RBDMS Report Name: <rpt_EMIT_WellFailure>

Legend: Meth. = Method
Rst. = Result

NOTE: This reports summarizes data for wells having outstanding deficiencies recorded for the External Mechanical Integrity Test

EMIT Well Failure Summary Report

Run Date: *28-Dec-94*

API Well Number	Operator Number	Well Name	Test Date	Reason for Test	Test Meth	Tst Rslt	Repair Due	Repair Completed	Failure Type	Dt Rec Updated
26-012-00784-00-00	1008.01	B. Clinton No. 4	7/15/93	WRKOVR	ERTS	F	7/16/93	7/30/94	CSG	
26-041-00092-00-00	1007.01	D. Eno No. 1	10/7/93	5YRTST	OEMI	F	10/20/93	10/20/93	BCF	
26-003-00019-00-00	1000.01	D. Henderson No. 3	10/8/91	WRKOVR	ERTS	F	11/8/91	11/5/91	TBG	11/18/94

Legend: Meth. = Method
Rst. = Result

NOTE: This reports summarizes data for wells having outstanding deficiencies recorded for the External Mechanical Integrity Test

External Mechanical Integrity Testing Tracking Report

Report Description

This report presents tracking information pertaining to External Mechanical Integrity Testing Results and includes important test dates to assist in schedule evaluation and planning.

RBDMS Report Name: <rpt_EMITresults>

Legend: A = Adequate
F = Failure

External Mechanical Integrity Testing Tracking Report

Run Date: *28-Dec-94*

API Well Number / Well Name and Number	Operator Name	EMIT Freq (in Mos)	Date Last EMIT	EMIT Result (A or F)	Next EMIT Due	Last EMIT Method	Date Record Updated
26-001-00001-02-01							
D. Henderson No. 2	Amoco Production Company	12	5/6/93	A	9/9/94	ERTS	12/6/94
26-003-00001-00-00							
T. Gillespie No. 2	Amerada Hess Corporation	12	6/5/93	A	9/9/94	TEMP	11/21/94
26-003-00019-00-00							
D. Henderson No. 3	Amoco Production Company	12	11/7/91	A	9/9/94	CMTL	12/6/94
26-003-00019-00-00							
D. Henderson No. 3	Amoco Production Company	12	11/7/91	A	9/9/94	CMTR	12/6/94
26-003-00019-00-00							
D. Henderson No. 3	Amoco Production Company	12	11/7/91	A	9/9/94	TEMP	12/6/94
26-003-00019-00-00							
D. Henderson No. 3	Amoco Production Compan[illegible]	12	11/7/91	A	9/9/94	ERTS	12/6/94
26-003-00019-00-00							
D. Henderson No. 3	Amoco Production Company	12	10/8/91	F	9/9/94	ERTS	12/6/94
26-003-00019-00-00							
D. Henderson No. 3	Amoco Production Company	12	10/10/90	A	9/9/94	CMTR	12/6/94
26-003-00019-00-00							
D. Henderson No. 3	Amoco Production Company	12	10/10/90	A	9/9/94	CMTL	12/6/94
26-012-00784-00-00							
B. Clinton No. 4	Texaco Exploration & Productio	12	7/15/93	F	9/9/94	ERTS	11/21/94
26-016-00129-00-00							
B. Clinton No. 22	Texaco Exploration & Productio	12	8/1/93	A	9/9/94	OAL	11/21/94
26-034-00063-00-00							
F. Hillie No. 1	Amoco Production Company	12	9/5/93	A	9/9/94	NOIS	11/21/94

Legend: A = Adequate
F = Failure

External Mechanical Integrity Testing Tracking Report

Run Date: *28-Dec-94*

API Well Number / Well Name and Number	Operator Name	EMIT Freq (in Mos)	Date Last EMIT	EMIT Result (A or F)	Next EMIT Due	Last EMIT Method	Date Record Updated
26-041-00092-00-00							
D. Eno No. 1	Shell Western E&P Inc	12	10/7/93	F	9/8/94	OEMI	11/21/94
26-056-00001-00-00							
S. Belieu No. 2	Exxon Company, U.S.A.	12	11/11/90	A	11/11/95	CMTR	11/21/94

Legend: A = Adequate
F = Failure

Class II Injection Well Monitoring Report Tracking System (Injection Volumes/Pressures)

Report Description

This report presents monitoring and related permit data for Class II injection wells on a month-by-month basis depending on selection criteria chosen upon activating this report function from RBDMS.

RBDMS Report Name: <rpt_InjMonitoring>

NOTE: Qi(mx)=Max. Inj. Rate, Qi(av)=Avg. Inj. Rate, Qi(allow)=Max. Allowable Inj. Rate, Pt(mx)=Max.Tubing Pressure, Pt(av)=Avg. Tubing Pressure, Pt(allow)=Max. Allowable Tubing Pressure, Pr(av)=Avg. Reservoir Pressure, Pa(mx)=Max. Annulus Tubing/Casing Pressure, Pa(av)=Avg. Annulus Tubing/Casing Pressure.

Injection Volumes and Pressures

Run Date: 28-Dec-94

API Well Number	Operator Name	Field Number	Pool Name
26-001-00001-02-00	Amoco Production Company	100003	Oklahoma City Deep

Yr.	Mo.	Days	Inj. Volumes (BPD) Liquid	Inj. Volumes (BPD) Gas	Qi(mx) (BPD)	Qi(av) (BPD)	Qi(allow) (BPD)	Pt(mx) (psig)	Pt(av) (psig)	Pt(allow) (psig)	Pr(av) (psig)	Pa(max) (psig)	Pa(av) (psig)	Adjusted?	Delinquent?	Date Record Updated
1994	1	30	9,999	9,999	9,999	9,999	9,999	9,999	9,999	9,999	9,999	999	999	Yes	Yes	9/9/94
1994	1	30	9,999	9,999	9,999	9,999	9,999	9,999	9,999	9,999	9,999	999	999	Yes	Yes	9/9/94
1994	2	28	8,888	8,888	8,888	8,888	1,313	9,939	9,393	900	8,888	993	888	No	No	9/9/94
1994	2	28	8,888	8,888	8,888	8,888	1,313	9,939	9,393	900	8,888	993	888	No	No	9/9/94
1994	3	30	7,777	7,777	7,777	7,777	1,313	7,777	7,777	900	7,777	777	777	No	No	9/9/94
1994	3	30	7,777	7,777	7,777	7,777	1,313	7,777	7,777	900	7,777	777	777	No	No	9/9/94
1994	4	31	67,676	7,676	6,767	76,767	1,313	6,666	6,666	900	7,676	676	767	Yes	No	9/9/94
1994	4	31	67,676	7,676	6,767	76,767	1,313	6,666	6,666	900	7,676	676	767	Yes	No	9/9/94
1994	5	30	5,555	5,555	5,555	5,555	1,313	5,555	5,555	900	5,555	5,555	5,555	No	Yes	9/9/94
1994	5	30	5,555	5,555	5,555	5,555	1,313	5,555	5,555	900	5,555	5,555	5,555	No	Yes	9/9/94
1994	6	30	4,444	4,444	444	4,444	1,313	4,444	4,444	900	4,444	4,444	444	Yes	No	9/9/94
1994	6	30	4,444	4,444	444	4,444	1,313	4,444	4,444	900	4,444	4,444	444	Yes	No	9/9/94
1994	7	30	3,333	3,333	333	3,333	1,313	3,333	3,333	900	3,333	3,333	3,333	No	No	9/9/94
1994	7	30	3,333	3,333	333	3,333	1,313	3,333	3,333	900	3,333	3,333	3,333	No	No	9/9/94

NOTE: Qi(mx)=Max. Inj. Rate, Qi(av)=Avg. Inj. Rate, Qi(allow)=Max. Allowable Inj. Rate, Pt(mx)=Max.Tubing Pressure, Pt(av)=Avg. Tubing Pressure, Pt(allow)=Max. Allowable Tubing Pressure, Pr(av)=Avg. Reservoir Pressure, Pa(mx)=Max. Annulus Tubing/Casing Pressure, Pa(av)=Avg. Annulus Tubing/Casing Pressure.

Injection Volumes and Pressures

Run Date: 28-Dec-94

API Well Number	Operator Name	Field Number	Pool Name

Yr.	Mo.	Days	Inj. Volumes (BPD) Liquid	Inj. Volumes (BPD) Gas	Qi(mx) (BPD)	Qi(av) (BPD)	Qi(allow) (BPD)	Pt(mx) (psig)	Pt(av) (psig)	Pt(allow) (psig)	Pr(av) (psig)	Pa(max) (psig)	Pa(av) (psig)	Adjusted?	Delinquent?	Date Record Updated
1994	8	29	99,999	9,999	999	9,999	1,313	9,999	9,999	900	9,999	9,999	999	Yes	Yes	9/9/94
1994	8	29	99,999	9,999	999	9,999	1,313	9,999	9,999	900	9,999	9,999	999	Yes	Yes	9/9/94
1994	9	30	9,999	9,999	999	999	1,313	9,999	9,999	900	9,999	9,999	9,999	No	No	9/9/94
1994	9	30	9,999	9,999	999	999	1,313	9,999	9,999	900	9,999	9,999	9,999	No	No	9/9/94
1994	10	30	9,999	9,999	999	999	1,313	9,999	9,999	900	9,999	999	999	Yes	Yes	9/9/94
1994	10	30	9,999	9,999	999	999	1,313	9,999	9,999	900	9,999	999	999	Yes	Yes	9/9/94
1994	11	29	8,888	8,888	888	888	1,313	8,888	8,888	900	8,888	888	888	Yes	Yes	9/9/94
1994	11	29	8,888	8,888	888	888	1,313	8,888	8,888	900	8,888	888	888	Yes	Yes	9/9/94
1994	12	31	87,878	78,787	787	878	1,313	8,787	8,787	900	7,878	878	878	No	No	9/9/94
1994	12	31	87,878	78,787	787	878	1,313	8,787	8,787	900	7,878	878	878	No	No	9/9/94

26-001-00001-02-00	Amoco Production Company	100003	Oklahoma City Deep

Yr.	Mo.	Days	Inj. Volumes (BPD) Liquid	Inj. Volumes (BPD) Gas	Qi(mx) (BPD)	Qi(av) (BPD)	Qi(allow) (BPD)	Pt(mx) (psig)	Pt(av) (psig)	Pt(allow) (psig)	Pr(av) (psig)	Pa(max) (psig)	Pa(av) (psig)	Adjusted?	Delinquent?	Date Record Updated
1995	1	22	999	999	999	999	1,414	9,999	9,999	900	999	999	999	Yes	Yes	9/9/94
1995	1	22	999	999	999	999	1,414	9,999	9,999	900	999	999	999	Yes	Yes	9/9/94
1995	2	30	999	999	999	999	1,414	9,999	9,999	900	999	999	999	Yes	Yes	9/9/94
1995	2	30	999	999	999	999	1,414	9,999	9,999	900	999	999	999	Yes	Yes	9/9/94

NOTE: Qi(mx)=Max. Inj. Rate, Qi(av)=Avg. Inj. Rate, Qi(allow)=Max. Allowable Inj. Rate, Pt(mx)=Max.Tubing Pressure, Pt(av)=Avg. Tubing Pressure, Pt(allow)=Max. Allowable Tubing Pressure, Pr(av)=Avg. Reservoir Pressure, Pa(mx)=Max. Annulus Tubing/Casing Pressure, Pa(av)=Avg. Annulus Tubing/Casing Pressure.

Injection Volumes and Pressures

Run Date: 28-Dec-94

API Well Number	Operator Name	Field Number	Pool Name

Yr.	Mo.	Days	Inj. Volumes (BPD) Liquid	Inj. Volumes (BPD) Gas	Qi(mx) (BPD)	Qi(av) (BPD)	Qi(allow) (BPD)	Pt(mx) (psig)	Pt(av) (psig)	Pt(allow) (psig)	Pr(av) (psig)	Pa(max) (psig)	Pa(av) (psig)	Adjusted?	Delinquent?	Date Record Updated
1995	3	0	0	0	0	0	1,414	0	0	900	0	0	0	No	No	9/9/94
1995	3	0	0	0	0	0	1,414	0	0	900	0	0	0	No	No	9/9/94

26-001-00001-02-01	Amoco Production Company	100001	Smithton River

Yr.	Mo.	Days	Inj. Volumes (BPD) Liquid	Inj. Volumes (BPD) Gas	Qi(mx) (BPD)	Qi(av) (BPD)	Qi(allow) (BPD)	Pt(mx) (psig)	Pt(av) (psig)	Pt(allow) (psig)	Pr(av) (psig)	Pa(max) (psig)	Pa(av) (psig)	Adjusted?	Delinquent?	Date Record Updated
1994	1	0	0	0	0	0	0	0	0	0	0	0	0	No	No	9/9/94
1994	1	0	0	0	0	0	0	0	0	0	0	0	0	No	No	9/9/94

26-001-00001-02-01	Amoco Production Company	100001	Smithton River

Yr.	Mo.	Days	Inj. Volumes (BPD) Liquid	Inj. Volumes (BPD) Gas	Qi(mx) (BPD)	Qi(av) (BPD)	Qi(allow) (BPD)	Pt(mx) (psig)	Pt(av) (psig)	Pt(allow) (psig)	Pr(av) (psig)	Pa(max) (psig)	Pa(av) (psig)	Adjusted?	Delinquent?	Date Record Updated
1995	1	0	0	0	0	0	1,414	0	0	900	0	0	0	No	No	9/9/94
1995	1	0	0	0	0	0	1,414	0	0	900	0	0	0	No	No	9/9/94

26-003-00001-00-00	Amerada Hess Corporation	100007	

Yr.	Mo.	Days	Inj. Volumes (BPD) Liquid	Inj. Volumes (BPD) Gas	Qi(mx) (BPD)	Qi(av) (BPD)	Qi(allow) (BPD)	Pt(mx) (psig)	Pt(av) (psig)	Pt(allow) (psig)	Pr(av) (psig)	Pa(max) (psig)	Pa(av) (psig)	Adjusted?	Delinquent?	Date Record Updated
1994	1	0	0	0	0	0	1,313	0	0	900	0	0	0	No	No	9/9/94
1994	1	0	0	0	0	0	1,313	0	0	900	0	0	0	No	No	9/9/94

NOTE: Qi(mx)=Max. Inj. Rate, Qi(av)=Avg. Inj. Rate, Qi(allow)=Max. Allowable Inj. Rate, Pt(mx)=Max.Tubing Pressure, Pt(av)=Avg. Tubing Pressure, Pt(allow)=Max. Allowable Tubing Pressure, Pr(av)=Avg. Reservoir Pressure, Pa(mx)=Max. Annulus Tubing/Casing Pressure, Pa(av)=Avg. Annulus Tubing/Casing Pressure.

Injection Volumes and Pressures

Run Date: 28-Dec-94

API Well Number	Operator Name	Field Number	Pool Name
26-003-00019-00-00	Amoco Production Company	100006	

Yr.	Mo.	Days	Inj. Volumes (BPD) Liquid	Inj. Volumes (BPD) Gas	Qi(mx) (BPD)	Qi(av) (BPD)	Qi(allow) (BPD)	Pt(mx) (psig)	Pt(av) (psig)	Pt(allow) (psig)	Pr(av) (psig)	Pa(max) (psig)	Pa(av) (psig)	Adjusted?	Delinquent?	Date Record Updated
1994	1	0	0	0	0	0	1,414	0	0	900	0	0	0	No	No	9/9/94
1994	1	0	0	0	0	0	1,414	0	0	900	0	0	0	No	No	9/9/94

API Well Number	Operator Name	Field Number	Pool Name
26-012-00784-00-00	Texaco Exploration & Productio	100005	

Yr.	Mo.	Days	Inj. Volumes (BPD) Liquid	Inj. Volumes (BPD) Gas	Qi(mx) (BPD)	Qi(av) (BPD)	Qi(allow) (BPD)	Pt(mx) (psig)	Pt(av) (psig)	Pt(allow) (psig)	Pr(av) (psig)	Pa(max) (psig)	Pa(av) (psig)	Adjusted?	Delinquent?	Date Record Updated
1994	1	0	0	0	0	0	1,414	0	0	900	0	0	0	No	No	9/9/94
1994	1	0	0	0	0	0	1,414	0	0	900	0	0	0	No	No	9/9/94

API Well Number	Operator Name	Field Number	Pool Name
26-012-00784-00-00	Texaco Exploration & Productio	100005	

Yr.	Mo.	Days	Inj. Volumes (BPD) Liquid	Inj. Volumes (BPD) Gas	Qi(mx) (BPD)	Qi(av) (BPD)	Qi(allow) (BPD)	Pt(mx) (psig)	Pt(av) (psig)	Pt(allow) (psig)	Pr(av) (psig)	Pa(max) (psig)	Pa(av) (psig)	Adjusted?	Delinquent?	Date Record Updated
1995	1	30	0	0	0	0	1,414	300	0	900	0	0	0	Yes	No	9/9/94
1995	1	30	0	0	0	0	1,414	300	0	900	0	0	0	Yes	No	9/9/94

API Well Number	Operator Name	Field Number	Pool Name
26-034-00063-00-00	Amoco Production Company	100005	

Yr.	Mo.	Days	Inj. Volumes (BPD) Liquid	Inj. Volumes (BPD) Gas	Qi(mx) (BPD)	Qi(av) (BPD)	Qi(allow) (BPD)	Pt(mx) (psig)	Pt(av) (psig)	Pt(allow) (psig)	Pr(av) (psig)	Pa(max) (psig)	Pa(av) (psig)	Adjusted?	Delinquent?	Date Record Updated

NOTE: Qi(mx)=Max. Inj. Rate, Qi(av)=Avg. Inj. Rate, Qi(allow)=Max. Allowable Inj. Rate, Pt(mx)=Max.Tubing Pressure, Pt(av)=Avg. Tubing Pressure, Pt(allow)=Max. Allowable Tubing Pressure, Pr(av)=Avg. Reservoir Pressure, Pa(mx)=Max. Annulus Tubing/Casing Pressure, Pa(av)=Avg. Annulus Tubing/Casing Pressure.

Injection Pressure/Rate Excedence Tracking Report System

Report Description

This report presents information pertaining to Class II injection well in which records show either (or both) injection pressures and flow rates have exceeded permitted or otherwise allowed maximums.

RBDMS Report Name: <rpt_Pres/FlowExcedences>

Pt(mx)=Max. Reported Monthly Inj. Pressure, Pt(allow)=Max. Allowable Injection Pressure,
Qi(mx)=Max. Reported Monthly Inj. Rate, Qi(allow)=Max. Allowable Inj. Rate.

Injection Pressures and Rates Exceding Permitted Maximum Tracking Report

Run Date : *28-Dec-94*

API Well Number	Well Name And Number	Operator Name	Year	Rpt Mo.	Pt(allow) (psig)	Pt(mx) (psig)	Excedance (Y/N)	Qi(allow)	Qi(mx)	Excedance	Dt Rec Updated
26-001-00001-02-00	D. Henerson No. 1	Amoco Production Company	1994	1	9,999	9,999	No	9,999	9,999	No	9/9/94
26-001-00001-02-00	D. Henerson No. 1	Amoco Production Company	1994	2	900	9,939	Yes	1,313	8,888	Yes	9/9/94
26-001-00001-02-00	D. Henerson No. 1	Amoco Production Company	1994	3	900	7,777	Yes	1,313	7,777	Yes	9/9/94
26-001-00001-02-00	D. Henerson No. 1	Amoco Production Company	1994	4	900	6,666	Yes	1,313	6,767	Yes	9/9/94
26-001-00001-02-00	D. Henerson No. 1	Amoco Production Company	1994	5	900	5,555	Yes	1,313	5,555	Yes	9/9/94
26-001-00001-02-00	D. Henerson No. 1	Amoco Production Company	1994	6	900	4,444	Yes	1,313	444	No	9/9/94
26-001-00001-02-00	D. Henerson No. 1	Amoco Production Company	1994	7	900	3,333	Yes	1,313	333	No	9/9/94
26-001-00001-02-00	D. Henerson No. 1	Amoco Production Company	1994	8	900	9,999	Yes	1,313	999	No	9/9/94
26-001-00001-02-00	D. Henerson No. 1	Amoco Production Company	1994	9	900	9,999	Yes	1,313	999	No	9/9/94
26-001-00001-02-00	D. Henerson No. 1	Amoco Production Company	1994	10	900	9,999	Yes	1,313	999	No	9/9/94
26-001-00001-02-00	D. Henerson No. 1	Amoco Production Company	1994	11	900	8,888	Yes	1,313	888	No	9/9/94
26-001-00001-02-00	D. Henerson No. 1	Amoco Production Company	1994	12	900	8,787	Yes	1,313	787	No	9/9/94
26-001-00001-02-00	D. Henerson No. 1	Amoco Production Company	1995	1	900	9,999	Yes	1,414	999	No	9/9/94
26-001-00001-02-00	D. Henerson No. 1	Amoco Production Company	1995	2	900	9,999	Yes	1,414	999	No	9/9/94
26-001-00001-02-00	D. Henerson No. 1	Amoco Production Company	1995	3	900	0	No	1,414	0	No	9/9/94
26-001-00001-02-01	D. Henderson No. 2	Amoco Production Company	1994	1	0	0	No	0	0	No	9/9/94

Pt(mx)=Max. Reported Monthly Inj. Pressure, Pt(allow)=Max. Allowable Injection Pressure,
Qi(mx)=Max. Reported Monthly Inj. Rate, Qi(allow)=Max. Allowable Inj. Rate.

Injection Pressures and Rates Exceding Permitted Maximum Tracking Report

Run Date : 28-Dec-94

API Well Number	Well Name And Number	Operator Name	Year	Rpt Mo.	Pt(allow) (psig)	Pt(mx) (psig)	Excedance (Y/N)	Qi(allow)	Qi(mx)	Excedance	Dt Rec Updated
26-001-00001-02-01	D. Henderson No. 2	Amoco Production Company	1995	1	900	0	No	1,414	0	No	9/9/94
26-003-00019-00-00	D. Henderson No. 3	Amoco Production Company	1994	1	900	0	No	1,414	0	No	9/9/94
26-003-00001-00-00	T. Gillespie No. 2	Amerada Hess Corporation	1994	1	900	0	No	1,313	0	No	9/9/94
26-012-00784-00-00	B. Clinton No. 4	Texaco Exploration & Productio	1994	1	900	0	No	1,414	0	No	9/9/94
26-012-00784-00-00	B. Clinton No. 4	Texaco Exploration & Productio	1995	1	900	300	No	1,414	0	No	9/9/94
26-034-00063-00-00	F. Hillie No. 1	Amoco Production Company	1994	1	900	0	No	1,414	0	No	9/9/94
26-056-00011-00-00	T. Gillespie No. 1	Amerada Hess Corporation	1994	1	900	0	No	1,313	0	No	9/9/94
26-056-00022-00-00	F. Hillie No. 2	Amoco Production Company	1994	1	900	0	No	1,414	0	No	9/9/94
26-094-00012-00-00	T. Richmond No. 1	Conoco, Inc.	1994	1	900	0	No	1,313	0	No	9/9/94
26-094-00014-00-00	T. Richmond No. 2	Conoco, Inc.	1994	1	900	0	No	1,313	0	No	9/9/94
26-154-01009-00-00	D. Arthur No. 1	Conoco Inc.	1994	1	900	0	No	1,313	0	No	9/9/94
26-198-77771-00-00	Backbone No. 271	Shell Western E&P Inc	1994	1	900	0	No	1,414	0	No	12/28/94

Pt(mx)=Max. Reported Monthly Inj. Pressure, Pt(allow)=Max. Allowable Injection Pressure,
Qi(mx)=Max. Reported Monthly Inj. Rate, Qi(allow)=Max. Allowable Inj. Rate.

United States Environmental Protection Agency
Office of Ground Water and Drinking Water
Washington, DC 20480
UIC Federal Reporting System

Part I: Permit Review and Issuance/ Wells in Area of Review

(This information is solicited under the authority of the Safe Drinking Water Act)

I. Name and Address of Preparing Agency

II. Date Prepared (Mo, Day, Yr): 2/24/95

III. State Contact (Name, Telephone No.)

IV. Recording Period (Month/Year): From: 1/1/85 To: 1/1/95

Item					Class and Type of injection well		
					SWD	ER	LHS
V. Permit Application	Number of Permit Applications Received				13	13	0
VI. Permit Determination	Permits Issued	A	Number of Individual Permits Issued (One Well)	New Wells	11	9	0
				Existing Wells	0	0	0
		B	Number of Area Permits Issued (Multiple Wells)	New Wells	2	4	0
				Existing Wells	0	0	0
		C	Number of Wells in Area Permits	New Wells	2	4	0
				Existing Wells	0	0	0
	Permits Not Issued	D	Number of Permits Denied/Withdrawn (after complete technical review)		1	3	0
	Modifications Issued	E	Number of Major Permit Modifications Approved		5	2	0
	New Wells	F	Number of New Wells Drilled		0	1	0
VII. Permit File Review	Number of Rule-Authorized Class II Wells Reviewed			Wells Reviewed	1	0	0
				Wells Passing	1	0	0
				Wells Deficient	0	0	0
VIII. Area of Review (AOR)	Wells Reviewed	A	Number of Wells in Area of Review	Abandoned Wells	0	0	0
				Other Wells	0	0	0
	Wells Identified for C/A	B	Number of Wells Identified for Corrective Action	Abandoned Wells	0	0	0
				Other Wells	0	0	0
	Wells with C/A	C	1. Number of Wells in AOR with Casing Repaired/Recommended		0	0	0
			2. Number of Active Wells in AOR Plugged/Abandoned		0	0	0
			3. Number of Abandoned Wells in AOR Plugged		0	0	0
			4. Number of Wells in AOR with Other Corrective Action		0	0	0

IX. Remarks/Ad Hoc Report (Attach additional attachments as necessary

Certification

I certify that the statements I have made on this form and all attachments thereof are true, accurate, and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under appropriate law.

Signature and Typed or Printed Name and Title of Person Completing Form	Date	Phone No.

United States Environmental Protection Agency
Office of Ground Water and Drinking Water
Washington, DC 20480
UIC Federal Reporting System

Part II-a: Compliance Evaluation

(This information is solicited under the authority of the Safe Drinking Water Act)

I. Name and Address of Preparing Agency

II. Date Prepared (Mo, Day, Yr): 2/24/95

III. State Contact (Name, Telephone No.)

IV. Recording Period (Month/Year): From: 1/1/85 To: 1/1/95

Item				Class and Type of Injection Well		
				SWD	ER	LHS
V. Summary of Significant Non-Compliance (SNC)	Total Wells	A	Number of Wells with Violations	13	31	0
	Total Violations	B	1. No. of Unathorized Injection Violations	0	1	0
			2. No. of Mechanical Integrity Violations	5	6	0
			3. No. of Injection Pressure/Rate Violations	0	0	0
			4. No. of Plugging and Abandonment Violations	0	0	0
			5. No. of Operation/Maintenance Violations	4	6	0
			6. No. of Monitoring/Reporting Violations	2	9	0
			7. No. of Violations of Formal Orders	0	0	0
			8. No. of Casing/Cementing Violations	1	4	0
			9. No. of Falsification Violations	0	3	0
			10. No. of Financial Responsibilty Violations	1	6	0
			11. Number of Other Violations	0	0	0
VI. Summary of Enforcement Actions Against SNC Violations	Total Wells	A	Number of Wells with Enforcement Actions	11	25	0
	Total Enforcement Actions	B	1. No. of Notices of Violations	0	0	0
			2. No. of Administrative Orders	5	7	0
			a. Unilateral Order	0	1	0
			b. Consent Order	1	1	0
			c. Pipeline Severance	0	0	0
			d. Well Shut-in	1	0	0
			e. Other	3	5	0
			3. No. of Consent Decrees	2	4	0
			4. No. of Civil Referrals	0	3	0
			5. No. of Criminal Referrals	0	3	0
			6. No. of Emergency Inspections	2	4	0
			7. No. of Show Cause Hearings	0	0	0
			8. No. of Commence Bond Forfeitures	2	3	0
			9. No. of Other Enforcement Actions Against Violations (Specify)	0	1	0
VII. Summary of Compliance	No. of Wells Returned to Compliance		A. This Quarter	8	23	0
			B. This Year	0	0	0
VIII. Contamination	No. of Cases of Alleged Contamination of a USDW			0	0	0
IX. MIT Results	Percent of MIT Violation Resolved in 90 days					

Certification

I certify that the statements I have made on this form and all attachments thereof are true, accurate, and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under appropriate law.

Signature and Typed or Printed Name and Title of Person Completing Form	Date	Phone No.

United States Environmental Protection Agency
Office of Ground Water and Drinking Water
Washington, DC 20480
UIC Federal Reporting System

Part II-b: Compliance Evaluation Significant Noncompliance

(This information is solicited under the authority of the Safe Drinking Water Act)

I. Name and Address of Preparing Agency

II. Date Prepared (mo, day, yr): 2/24/95

III. State Contact (Name, Telephone No.)

IV. Recording Period (Month/Year): From: 1/1/85 To: 1/1/95

Item				Class and Type of Injection Well		
				SWD	ER	LHS
V. Summary of Significant Non-Compliance (SNC)	Total Wells	A	Number of Wells with SNC Violations	5	36	0
	Total Violations	B	1. No. of Unauthorized Injection SNC Violations	0	1	0
			2. No. of Mechanical Integrity SNC Violations	1	4	0
			3. No. of Injection Pressure SNC Violations	0	0	0
			4. No. of Plugging and Abandonment SNC Violations	0	0	0
			5. No. of SNC Violations of Formal Orders	0	0	0
			6. No. of Falsification SNC Violations	0	3	0
			7. Number of Other SNC Violations (Specifiy)	2	24	0
VI. Summary of Enforcement Actions Against SNC Violations	Total Wells	A	Number of Wells with Enforcement Actions Against SNC Violations	5	21	0
	Total Enforcement Actions	B	1. No. of Notices of Violations	0	0	0
			2. No. of Consent Agreements/ Orders	1	0	0
			3. No. of Administrative Orders	1	4	0
			4. No. of Civil Referrals	0	3	0
			5. No. of Criminal Referrals	0	2	0
			6. No. of Shut-In Wells	0	0	0
			7. No. of Pipeline Severances	0	0	0
			8. No. of Other Enforcement Actions Against SNC Violations (Specify)	3	12	0
VII. Summary of Compliance	No. of Wells in SNC Returned to Compliance		A. This Quarter	3	20	0
			B. This Year	0	0	0
VIII. Contamination	No. of Cases of Alleged Contamination of a USDW					

Certification

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Signature and Typed or Printed Name and Title of Person Completing Form	Date	Phone No.

United States Environmental Protection Agency
Office of Ground Water and Drinking Water
Washington, DC 20480
UIC Federal Reporting System

Part III: Inspections
Mechanical Integrity Testing

(This information is solicited under the authority of the Safe Drinking Water Act)

I. Name and Address of Preparing Agency

II. Date Prepared (Mo, Day, Yr): 3/6/95

III. State Contact (Name, Telephone No.)

IV. Recording Period (Month/Year): From: 1/1/80 To: 1/1/91

Item					Class and Type of Injection Well		
					SWD	ER	LHS
V. Summary of Inspections	Total Wells	A	Number of Wells Inspected		0	0	0
	Total Inspections	B	1. No. of Mechanical Integrity Tests (MITs) Witnessed		0	0	0
			2. No. of Emergency Response or Complaint Response Inspections		0	0	0
			3. No. of Well Constructions Witnessed		0	0	0
			4. No. of Well Pluggings Witnessed		0	0	0
			5. No. of Routine/Periodic Inspections		0	0	0
VI. Summary of Mechanical Integrity (MI)	Total Wells	A	Number of Wells Tested or Evaluated for Mechanical Integrity (MIT)		15	24	1
		B	No. of Permitted Wells Tested/Evaluated for MI	Passed 2-part test (IMI and EMI)	1	1	0
				Failed 2-part test (IMI and EMI)	4	9	0
			No. of Rule-Authorized Wells Tested/Evaluated for MI	Passed 2-part test (IMI and EMI)	1	0	0
				Failed 2-part test (IMI and EMI)	0	0	0
	For Significant Leak	C	1. No. of Annulus Pressure Monitoring Record Evaluations	Wells Passed	1	2	0
				Wells Failed	0	0	0
			2. Number of Casing/Tubing Pressure Tests	Wells Passed	0	0	0
				Wells Failed	0	0	0
			3. Number of Monitoring Record Evaluations	Wells Passed	1	2	0
				Wells Failed	0	0	0
			4. Number of Ada Pressure Tests (Gas Displacement)	Wells Passed	0	0	0
				Wells Failed	0	1	0
			5. Number of Internal Radioactive Tracer Surveys	Wells Passed	0	0	0
				Wells Failed	1	0	0
			6. Number of Dual-Completion Test	Wells Passed	0	0	0
				Wells Failed	0	0	0
			7. Number of Water-In-Annulus Tests	Wells Passed	0	0	0
				Wells Failed	0	1	0
			8. Number of Gas Detector (Annulus Pressure) Tests	Wells Passed	0	0	0
				Wells Failed	0	1	0
			9. Number of Temperature Anomoly Tests	Wells Passed	0	0	0
				Wells Failed	0	0	0

United States Environmental Protection Agency
Office of Ground Water and Drinking Water
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Part III: Inspections
Mechanical Integrity Testing

(This information is solicited under the authority of the Safe Drinking Water Act)

I. Name and Address of Preparing Agency

II. Date Prepared (Mo, Day, Yr): 3/6/95

III. State Contact (Name, Telephone No.)

IV. Recording Period (Month/Year): From: 1/1/80 To: 1/1/91

VI. Summary of Mechanical Integrity (MI)			10. Number of Differential Temperature Tests	Wells Passed	0	0	0
				Wells Failed	0	0	0
			11. Number of Water/Brine Interface Tests	Wells Passed	0	0	0
				Wells Failed	0	0	0
			12. Number of Singie Point Resistivity Tests	Wells Passed	0	0	0
				Wells Failed	0	0	0
			13. Number of Other Significant Leak Test/Evaluations (Specify)	Wells Passed	0	0	0
				Wells Failed	0	1	0
	For Fluid Migration	D	1. Number of Cement Record Evaluations	Wells Passed	1	1	0
				Wells Failed	0	0	0
			2. Number of Temperature/Noise Log Tests	Wells Passed	0	0	0
				Wells Failed	0	0	0
			3. Number of Radioactive Tracer/Cement Bond Tests	Wells Passed	1	0	0
				Wells Failed	0	0	0
			4. Number of Oxygen Activation Log Tests	Wells Passed	0	0	0
				Wells Failed	0	0	0
			5. Number of Other Fluid Migration Tests/Evaluations (Specify)	Wells Passed	0	0	0
				Wells Failed	0	0	0
VII. Summary of Remedial Actions	Total Wells	A	Number of Wells with Remedial Actions		0	6	0
	Total Remedial Actions	B	1. No. of Casing Repairs/Squeeze Cement Remedial Actions		0	0	0
			2. No. of Tubing/Packer Remedial Actions		0	0	0
			3. No. of Plugging/Abandonment Remedial Actions		0	0	0
			4. No. of Other Remedial Actions (Specify)		0	0	0

IX. Remarks/Ad Hoc Report (Attach additional sheets as necessary)

Certification

I certify that the statements I have made on this form and all attachments thereof are true, accurate, and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under appropriate law.

Signature and Typed or Printed Name and Title of Person Completing Form	Date	Phone No.

United States Environmental Protection Agency
Office of Ground Water and Drinking Water
Washington, DC 20480
UIC Federal Reporting System

Part IV: Quarterly Exception Report

(This information is solicited under the authority of the Safe Drinking Water Act)

Simulated form based on OMB Form No. 2040-0012

IV. Recording Period (Month/Year)

From: 1/1/80 To: 1/1/91

II. Well Class and Type	III. Name and Address of Owner or Operator	IV. Well ID. (State UIC Permit No.)	V. Summary of Violations		VI. Summary of Enforcement		VII. Date Compliance Achieved
			Date of Violation	Violation Type	Date of Enforcement	Enforcement Type	
2R	Amoco Production Company, Wiggs, P. O. Box 1400, , Riverton, UT 82501	MS60000	12/12/90	Permit Violation Other	12/20/90	Criminal Referral	12/25/90
2R	Amerada Hess Corporation, Allen, HCR 2, Box 10, , Keene, ND 58763	MS60000	7/7/90	Falsification	7/10/90	Admin. Order-Other	7/14/90
2R	Amerada Hess Corporation, Allen, HCR 2, Box 10, , Keene, ND 58763	MS60000	7/7/90	Permit Violation Other	7/10/90	Admin. Order-Other	7/14/90
2R	Amerada Hess Corporation, Allen, HCR 2, Box 10, , Keene, ND 58763	MS60000	8/8/90	Permit Violation Other	8/8/90	Admin. Order-Other	8/24/90
2R	Amerada Hess Corporation, Allen, HCR 2, Box 10, , Keene, ND 58763	MS60000	9/9/90	Falsification	9/9/90	Commence Bond Mtg.	9/25/90
2R	Amerada Hess Corporation, Allen, HCR 2, Box 10, , Keene, ND 58763	MS60000	9/9/90	Mechanical Integrity	9/9/90	Commence Bond Mtg.	9/25/90
2R	Amerada Hess Corporation, Allen, HCR 2, Box 10, , Keene, ND 58763	MS60000	9/9/90	Monitoring/Reporting	9/9/90	Commence Bond Mtg.	9/25/90

Certification

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Signature of Person Completing List	Typed or Printed Name and Title	Date	Telephone No.

United States Environmental Protection Agency
Office of Ground Water and Drinking Water
Washington, DC 20480
UIC Federal Reporting System

Part IV: Quarterly Exception Report

(This information is solicited under the authority of the Safe Drinking Water Act)

Simulated form based on OMB Form No. 2040-0012

IV. Recording Period (Month/Year)

From: 1/1/80 To: 1/1/91

II. Well Class and Type	III. Name and Address of Owner or Operator	IV. Well ID. (State UIC Permit No.)	V. Summary of Violations		VI. Summary of Enforcement		VII. Date Compliance Achieved
			Date of Violation	Violation Type	Date of Enforcement	Enforcement Type	
2R	Amerada Hess Corporation, Allen, HCR 2, Box 10, , Keene, ND 58763	MS60000	9/9/90	Operation/Maintenance	9/9/90	Commence Bond Mtg.	9/25/90
2R	Texaco Exploration & Productio, Tipton, 3300 North Butler, , Farmington, NM 87401	MS60001	10/10/90	Monitoring/Reporting	10/11/90	Consent Decree	10/20/90
2R	Texaco Exploration & Productio, Tipton, 3300 North Butler, , Farmington, NM 87401	MS60001	11/11/90	Financial Responsibility	11/11/90	Consent Order	11/25/90

Certification

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Signature of Person Completing List	Typed or Printed Name and Title	Date	Telephone No.

Environmental Risk Probability Analysis

Selection Criteria

Date Range for Current Group:

3/15/80 through 1/8/95

Number of Years: 14.82

Values for Current Group

State = 26

MIT Statistics

Total Tests over Selected Period:	175
Total Salt Water Disposal Injection Wells:	51
Total Enhanced Recovery Injection Wells:	64
Total of Other Class II Injection Wells:	60

Well Failure Summary

Total Wells Failing MIT for Test Period: 41 (tot. failures)

Total Number of Wells where the Failure Cause is Known: 39

Total Number of Wells where the Failure Cause is Unknown: 2

Total Number of Casing Failures:

Actual: 19

Adjusted: 19.974359

Total Number of Tubing or Packer Failures:

Actual: 19

Adjusted: 19.974359

Total Number of Failures Not Contributed to Tbg, Csg, or Pkr:

Actual: 0

Adjusted: 0

Please Note: Actual data is adjusted to account for those failed tests in which a failure type and/or cause was not specified. Adjusted data is interpolated using actual failure data from those tests in which failure type/cause data has been reported.

Date Range for Current Group:	Values for Current Group
3/15/80 through 1/8/95	State = 26
Number of Years: 14.82	

Probability Analysis

Estimated Casing Leaks/Well-Year:	0.00770313	leaks/well-yr
Estimated Tubing Leaks/Well-Year:	0.00770313	leaks/well-yr
Probability of Simultaneous Csg/Tbg Lks Occuring for a Well-Year:	5.9338E-05	leaks/well-yr

Well Completion Information

A	Total no./percentage of wells w/in group having surf. csg set through the base of the lowermost USDW:	12	/	6.85714286
B	Total no./percentage of wells within group w/o surf. csg or where the surf. csg is not set through the base of the lowermost USDW:	163	/	93.1

Theoretical Number of Surface Casing Leaksk/Well-Year:	0.00154063	leaks/well-yr
Probability of Inj. Water Reaching a USDW in a given Well-Year (Well with adequate surf. csg-See A above):	9.1418E-08	events/well-yr
Probability of Inj. Water Reaching a USDW in a given Well-Year (Well w/o or with inadequate surf. csg-See B above):	5.9338E-05	events/well-yr

Inactive Class II Injection Well Tracking Report

Report Description

This report presents information on inactive Class II injection wells, including wellhead location and other information needed for tracking purposes.

RBDMS Report Name: <rpt_InactiveInjectors>

W=Wildcat, D=Development, O=Other, V=Vertical, D=Directional, H=Horizontal

Inactive Injection Tracking Report

Run Date: 28-Dec-94

API Well No.	Well Name and Number	Operator Number	Wellhead Location (PM, Quarter, Section, Twnsp, Rng)
26-041-00098-00-00	B. Smith No. 3	Phillips Petroleum Company	1ST , nwnwse , Sec. 20 , T 20 n , R 22 W
Field Name: Northwest Cabin Creek Est	**Pool Name:** Smithton River	**Well Type:** SWD	**Well Completion:** SNGL
Well Permit Number.: 900020	**UIC Permit Number:** MS60003	**Category:**	**Slant:** V
Completion Date:	**Date First Inj.:**	**Well Status:** SI	**Date Status:** 9/9/90
26-041-00099-00-00	B. Smith No. 2	Phillips Petroleum Company	1ST , SWSWSW , Sec. 17 , T 11 n , R 22 W
Field Name: Northwest Cabin Creek Est	**Pool Name:** Smithton River	**Well Type:** SWD	**Well Completion:** SNGL
Well Permit Number.: 900021	**UIC Permit Number:** MS60004	**Category:**	**Slant:** V
Completion Date:	**Date First Inj.:**	**Well Status:** SI	**Date Status:** 9/9/90
26-041-00187-00-00	B. Smith No. 1	Phillips Petroleum Company	1ST , SWSWSW , Sec. 12 , T 11 N , R 22 W
Field Name: Northwest Cabin Creek Est	**Pool Name:** Smithton River	**Well Type:** SWD	**Well Completion:** SNGL
Well Permit Number.: 900022	**UIC Permit Number:** MS60005	**Category:**	**Slant:** V
Completion Date:	**Date First Inj.:**	**Well Status:** SI	**Date Status:** 9/9/90

W=Wildcat, D=Development, O=Other, V=Vertical, D=Directional, H=Horizontal

WELLS REQUIRING INSPECTIONS

Report Description

This report lists all Wells, UIC Wells, or Only Production Wells that have not been inspected since the date specified. The purpose of this report is to assist in scheduling inspections. If a well has not been inspected since the date specified, but the well is scheduled for an inspection, it will appear in the report.

RBDMS Report Name: rptWellReqInsp

WELLS REQUIRING INSPECTIONS

Last Inspection Occurred Prior to: 1/1/95

	Inspect No.	Type of Inspection	Dt Required	Dt Notified	Dt Scheduled	Dt Performed

District

County	Field Name	Legal Description
Adams	**High Mountain Resort West**	**12 121.5N 111.5E 1ST swswsw**

Operator	API Number	Well Name	Well Type	Status	Status Date	Complin Dt
Shell Western E&P Inc	**26-001-00001-02-00**	**D. Henerson No. 1**	**S - GAS STORAGE**	**AI - Active Injection**	**1/1/90**	**5/15/90**

Grand Total of Wells Requiring Inspections = 1

INSPECTIONS PERFORMED BY INCIDENT REPORT

Report Description

This report lists the history of all inspections performed for a specified incident.

RBDMS Report Name: rptInspIncident, rptInspect, rptInspFail

INSPECTIONS PERFORMED FOR INCIDENT

Incident# **1**
Typ Incident
Cnty Name **Lincoln**
Operator **Amoco Production Company, The**
Field Name **AGAWAM**
Well Loctn **0 0 0**

Dt Perfrmd	Type of Inspection	Inspect#	Inspector	Vio	SN	Dist	Dt RmdyRq	Dt Remdied	Comply#	Faild	Description
10/19/94	CONSTRUCTION-CO	667							668		
10/18/94	MIT WITNESSED-MW	661		Y					668		

Total Inspections Performed: 2

LIST OF FAILED INSPECTIONS REQUIRING REMEDIAL ACTION

Report Description

This report lists all failed inspections for which the Date Remedied has not been entered. The report uses the Date Remedied inthe Comply Table if a Compliance record has been written for the Inspection, or the Date Remedied in the Inspection Table if a Compliance record has not been written. The report is sorted by District and Operator Name.

RBDMS Report Name: rptInspRmdl

FAILED INSPECTIONS REQUIRING REMEDIAL ACTION

API Well# / Incident / Rig / Meter	County Nm / Rig Desc	Field Name	Well Name / Type of Incident	Location
Dt Perfrmd	Type of Inspection	Inspect No.	Inspector	Durtn Vio Snc Rmdy Req	Faild Description

DISTRICT

-

Responsible Company

1000.01 The Amoco Production Company

API Well **26-001-00001-02-01**	**Adams**	**Northwest Cabin Creek Est**	**D. Henderson No. 2**		**1 12S 14W 1ST**
	METER-MT	**659**	**Y Y**	**2/20/95 *****	**1 Test MT-1**

SubTotal of Failed Inspection Items for Responsible Company = 0

SubTotal of Failed Inspection Items for OGCC District = 0

Total Number of Failed Inspection Items in Report = 0

*** Date Remedy Required prior to Report Date

LIST OF ACTIVE RIGS SHOWING LAST BOP INSPECTION DATE

Report Description

This report lists all Active Rigs and all inspections performed and scheduled for the rigs. The report is sorted alphabetically by Driller Name, Rig Number, and Date Inspection Performed descending.

RBDMS Report Name: rptRigByBOP

24-Feb-95

ACTIVE RIGS SHOWING LAST INSPECTION DATE

Dt Performed	Type Insp	Driller Number and Name		Rig No.	Description
12/30/94	RG	1000.01	Amoco Production Company, The	1	
		1002.01	Conoco Inc.	2	

Total Number of Rigs Listed: 2

INSPECTION FAIL CODES REPORT

Report Description

This report lists the Inspection Fail Codes for all Inspection Types or for a specified Inspection Type.

RBDMS Report Name: rptInspItem

Inspection Fail Codes List

Type of Inspection	Fail Code	Status	Description
CO - CONSTRUCTION	1	A	Test CO-1
	2	A	Test CO-2
	3	A	Test CO-3
CR - COMPLAINT RESPONSE	1	A	Test CR-1
	2	A	Test CR-2
	3	A	Test CR-3
CV - COMPLIANCE VERIFICATION	1	A	Test CV-1
	2	A	Test CV-2
	3	A	Test Cv-3
ER - EMERGENCY RESPONSE	1	A	Test ER-1
	2	A	Test ER-2
	3	A	Test ER-3
MT - METER	1	A	Test MT-1
	2	A	Test MT-2
	3	A	Test MT-3
MW - MIT WITNESSED	1	A	Test MW-1
	2	A	Test MW-2
	3	A	Test MW-3
PO - PRE-OPERATION	1	A	Test PO-1
	2	A	Test PO-2
	3	A	Test PO-3
PW - PLUGGING WITNESSED	1	A	Test PW-1
	2	A	Test PW-2
	3	A	Test PW-3
RG - RIG	1	A	Test RG-1
	2	A	test RG-2
	3	A	Test RG-3
RP - ROUTINE/PERIODIC	1	A	Test RP-1
	2	A	Test RP-2
	3	A	Test RP-3
SR - SURFACE RESTORATION	1	A	Test SR-1
	2	A	Test SR-2
	3	A	Test SR-3

Compliance, Enforcement, and Violation Comprehensive Report

Report Description

This report presents a comprehensive listing of data stored in the RBDMS COMPLIANCE Table.

RBDMS Report Name: <rpt_ComprehensiveComply>

Types of Violations: CC = Casing/Cementing; FA = Falsification; FO = Violation of Formal Order; FR = Financial Responsibility; MI = Mechanical Integrity; MR = Monitoring/Reporting; OM = Operation/Maintenance; PA = Plug/Abandonment; PR = Pressure/Rate; PV = Permit Violation-Other; UI = Unauthorized Injection; US = USDW Contamination

Types of Enforcement Actions: AO = Administrative Order; CB = Comence Bond Mtg.; CD = Consent Decree; CO = Consent Order; CR = Criminal Referral; CV = Civil Referral; FI = Field Inspection; IO = Informal Action-Other; JO = Judicial Order-Other; NV = Notice of Violation; PS = Pipeline Severence; SC = Show Cause Mtg.; SI = Shut In; UO Unilateral Order

Compliance, Enforcement, and Violation Comprehensive Report

Run Date: *28-Dec-94*

Compliance ID	Lease Number	Field Name	Operator Name	API Well Number	Well Name and Number
703	0	Northwest Cabin Creek Est	Shell Western E&P Inc	26-041-00092-00-00	D. Eno No. 1

Insp ID: 0 | Date Viol Occurred: 3/4/91 | Type of Viol: CC | SNC?: Y | Method SNC Determined: OT | Dt Op Notified: 3/4/91 | Type Notification: FVI

Dt Enforcement Initiated: 3/4/91 | Type Action: FI | Dt Compl Req: 3/24/91 | Dt Action Final: 3/16/91 | Dt Action Withdrawn: 3/16/91 | Dt Compl Acheived: 3/16/91

Docket No.: 46 | Dt Penalty Assessed: 3/4/91 | Amt Assessed: $6,000.00 | Dt Penalty Collected: 3/16/91 | Amt Collected: $60,000.00 | Type CA Implemented: BCF

Dt Appeal Filed: | Dt Appeal Canceled: | Dt Appeal Affirmed:

Comments:

Date Updated
7/29/94

Compliance ID	Lease Number	Field Name	Operator Name	API Well Number	Well Name and Number
702	0	Northwest Cabin Creek Est	Shell Western E&P Inc	26-041-00092-00-00	D. Eno No. 1

Insp ID: 0 | Date Viol Occurred: 2/3/91 | Type of Viol: MR | SNC?: Y | Method SNC Determined: UV | Dt Op Notified: 2/3/91 | Type Notification: LET

Dt Enforcement Initiated: 2/3/91 | Type Action: FI | Dt Compl Req: 2/27/91 | Dt Action Final: 2/21/91 | Dt Action Withdrawn: 2/22/91 | Dt Compl Acheived: 2/21/91

Docket No.: 45 | Dt Penalty Assessed: 2/3/91 | Amt Assessed: $500.00 | Dt Penalty Collected: 2/22/91 | Amt Collected: $500.00 | Type CA Implemented: PKR

Dt Appeal Filed: | Dt Appeal Canceled: | Dt Appeal Affirmed:

Comments:

Date Updated
7/29/94

Types of Violations: CC = Casing/Cementing; FA = Falsification; FO = Violation of Formal Order; FR = Financial Responsibility; MI = Mechanical Integrity; MR = Monitoring/Reporting; OM = Operation/Maintenance; PA = Plug/Abandonment; PR = Pressure/Rate; PV = Permit Violation-Other; UI = Unauthorized Injection; US = USDW Contamination

Types of Enforcement Actions: AO = Administrative Order; CB = Comence Bond Mtg.; CD = Consent Decree; CO = Consent Order; CR = Criminal Referral; CV = Civil Referral; FI = Field Inspection; IO = Informal Action-Other; JO = Judicial Order-Other; NV = Notice of Violation; PS = Pipeline Severence; SC = Show Cause Mtg.; SI = Shut In; UO Unilateral Order

Compliance, Enforcement, and Violation Comprehensive Report

Run Date: *28-Dec-94*

Compliance ID	Lease Number	Field Name	Operator Name	API Well Number	Well Name and Number
691	0	Northwest Cabin Creek Est	Shell Western E&P Inc	26-041-00092-00-00	D. Enn No. 1

Insp ID: 0 Date Viol Occurred: 10/10/93 Type of Viol: PV SNC?: Method SNC Determined: Dt Op Notified: 10/10/93 Type Notification: LET

Dt Enforcement Initiated: 10/10/93 Type Action: CR Dt Compl Req: 10/10/93 Dt Action Final: 10/10/93 Dt Action Withdrawn: Dt Compl Acheived:

Docket No.: 015 Dt Penalty Assessed: Amt Assessed: $6,000.00 Dt Penalty Collected: 10/10/93 Amt Collected: $10,000.00 Type CA Implemented: OIR

Dt Appeal Filed: Dt Appeal Canceled: Dt Appeal Affirmed:

Comments:

Date Updated

7/27/94

Types of Violations: CC = Casing/Cementing; FA = Falsification; FO = Violation of Formal Order; FR = Financial Responsibility; MI = Mechanical Integrity; MR = Monitoring/Reporting; OM = Operation/Maintenance; PA = Plug/Abandonment; PR = Pressure/Rate; PV = Permit Violation-Other; UI = Unauthorized Injection; US = USDW Contamination

Types of Enforcement Actions: AO = Administrative Order; CB = Comence Bond Mtg.; CD = Consent Decree; CO = Consent Order; CR = Criminal Referral; CV = Civil Referral; FI = Field Inspection; IO - Informal Action-Other; JO = Judicial Order-Other; NV = Notice of Violation; PS = Pipeline Severence; SC = Show Cause Mtg.; SI = Shut In; UO Unilateral Order

Enforcement Status Report (Multiple Wells)

Good!

Report Description

This report presents tracking information pertaining to enforcement actions, their status, penalties assessed, and whether or not the violation has been classified as Significant Non-Compliance (SNC)

RBDMS Report Name: <rpt_EnforceMult>

Types of Violations: CC = Casing/Cementing; FA = Falsification; FO = Violation of Formal Order; FR = Financial Responsibility; MI = Mechanical Integrity; MR = Monitoring/Reporting; OM = Operation/Maintenance; PA = Plug/Abandonment; PR = Pressure/Rate; PV = Permit Violation-Other; UI = Unauthorized Injection; US = USDW Contamination

Types of Enforcement Actions: AO = Administrative Order; CB = Comence Bond Mtg.; CD = Consent Decree; CO = Consent Order; CR = Criminal Referral; CV = Civil Referral; FI = Field Inspection; IO = Informal Action-Other; JO = Judicial Order-Other; NV = Notice of Violation; PS - Pipeline Severence; SC = Show Cause Mtg.; SI = Shut In; UO Unilateral Order

Enforcement Status Report (multiple wells)

Run Date: *28-Dec-94*

API Well No. / Operator Name	Well Name and Number	Violation Date	Violation Type	SNC?	Date Enf Act Initiated	Enf Type	Date Penalty Assessed	Date Record Updated
26-001-00001-02-01								
Amoco Production Company	D. Henderson No. 2		MR					11/28/94
26-001-00001-02-01								
Amoco Production Company	D. Henderson No. 2		MI					11/28/94
26-001-00001-02-01								
Amoco Production Company	D. Henderson No. 2		FR					11/28/94
26-001-00001-02-01								
Amoco Production Company	D. Henderson No. 2		FA					11/28/94
26-001-00001-02-01								
Amoco Production Company	D. Henderson No. 2		CC					11/28/94
26-001-00001-02-01								
Amoco Production Company	D. Henderson No. 2		OV					11/28/94
26-003-00001-00-00								
Amerada Hess Corporation	T. Gillespie No. 2	8/8/90	PV	Y	8/8/90	AO	$55,000.00	7/29/94
26-003-00001-00-00								
Amerada Hess Corporation	T. Gillespie No. 2	9/9/90	OM	Y	9/9/90	CB	$700.00	7/29/94
26-003-00001-00-00								
Amerada Hess Corporation	T. Gillespie No. 2	9/9/90	FA	Y	9/9/90	CB	$700.00	7/29/94

Types of Violations: CC = Casing/Cementing; FA = Falsification; FO = Violation of Formal Order; FR = Financial Responsibility; MI = Mechanical Integrity; MR = Monitoring/Reporting; OM = Operation/Maintenance; PA = Plug/Abandonment; PR = Pressure/Rate; PV = Permit Violation-Other; UI = Unauthorized Injection; US = USDW Contamination

Types of Enforcement Actions: AO = Administrative Order; CB = Comence Bond Mtg.; CD = Consent Decree; CO = Consent Order; CR = Criminal Referral; CV = Civil Referral; FI = Field Inspection; IO = Informal Action-Other; JO = Judicial Order-Other; NV = Notice of Violation; PS = Pipeline Severence; SC = Show Cause Mtg.; SI = Shut In; UO Unilateral Order

Enforcement Status Report (multiple wells)

Run Date: *28-Dec-94*

API Well No. Operator Name	Well Name and Number	Violation Date	Violation Type	SNC?	Date Enf Act Initiated	Enf Type	Date Penalty Assessed	Date Record Updated
26-003-00001-00-00 Amerada Hess Corporation	T. Gillespie No. 2	9/9/90	MI	Y	9/9/90	CB	$700.00	7/29/94
26-003-00001-00-00 Amerada Hess Corporation	T. Gillespie No. 2	5/5/93	FR	Y		IO		7/27/94
26-003-00001-00-00 Amerada Hess Corporation	T. Gillespie No. 2	5/5/93	CC	Y		IO		7/27/94
26-003-00001-00-00 Amerada Hess Corporation	T. Gillespie No. 2	7/7/90	PV	Y	7/10/90	AO	$200.00	7/29/94
26-003-00001-00-00 Amerada Hess Corporation	T. Gillespie No. 2	7/7/90	FA	Y	7/10/90	AO	$200.00	7/29/94
26-003-00001-00-00 Amerada Hess Corporation	T. Gillespie No. 2	9/9/90	MR	Y	9/9/90	CB	$700.00	7/29/94
26-012-00784-00-00 Texaco Exploration & Productio	B. Clinton No. 4	6/6/93	MI		6/14/93	UO	$1,000.00	7/27/94
26-016-00129-00-00 Texaco Exploration & Productio	B. Clinton No. 22	7/7/93	OM	Y	8/15/93	FI	$3,000.00	7/27/94
26-016-00129-00-00 Texaco Exploration & Productio	B. Clinton No. 22	11/11/90	FR	N	11/11/90	CO	$300.00	7/29/94

Types of Violations: CC = Casing/Cementing; FA = Falsification; FO = Violation of Formal Order; FR = Financial Responsibility; MI = Mechanical Integrity; MR = Monitoring/Reporting; OM = Operation/Maintenance; PA = Plug/Abandonment; PR = Pressure/Rate; PV = Permit Violation-Other; UI = Unauthorized Injection; US = USDW Contamination

Types of Enforcement Actions: AO = Administrative Order; CB = Comence Bond Mtg.; CD = Consent Decree; CO = Consent Order; CR = Criminal Referral; CV = Civil Referral; FI = Field Inspection; IO = Informal Action-Other; JO = Judicial Order-Other; NV = Notice of Violation; PS = Pipeline Severence; SC = Show Cause Mtg.; SI = Shut In; UO Unilateral Order

Enforcement Status Report (multiple wells)

Run Date: *28-Dec-94*

API Well No. Operator Name	Well Name and Number	Violation Date	Violation Type	SNC?	Date Enf Act Initiated	Enf Type	Date Penalty Assessed	Date Record Updated
26-016-00129-00-00 Texaco Exploration & Productio	B. Clinton No. 22	10/10/90	MR	Y	10/11/90	CD	$5,000.00	7/29/94
26-034-00063-00-00 Amoco Production Company	F. Hillie No. 1	1/3/91	FR	Y	1/10/91	CV	$350.00	7/29/94
26-034-00063-00-00 Amoco Production Company	F. Hillie No. 1	12/12/90	PV	Y	12/20/90	CR	$5,000.00	7/29/94
26-034-00063-00-00 Amoco Production Company	F. Hillie No. 1	1/1/91	OM					7/27/94
26-034-00063-00-00 Amoco Production Company	F. Hillie No. 1	1/1/91	MR					7/27/94
26-034-00063-00-00 Amoco Production Company	F. Hillie No. 1	9/5/93	OV			FI	$1,500.00	7/27/94
26-034-00063-00-00 Amoco Production Company	F. Hillie No. 1	9/5/93	MI			FI	$1,500.00	7/27/94
26-034-00063-00-00 Amoco Production Company	F. Hillie No. 1	1/3/91	MI	Y	1/10/91	CV	$350.00	7/29/94
26-034-00063-00-00 Amoco Production Company	F. Hillie No. 1	9/5/93	FR			FI	$1,500.00	7/27/94

Types of Violations: CC = Casing/Cementing; FA = Falsification; FO = Violation of Formal Order; FR = Financial Responsibility; MI = Mechanical Integrity; MR = Monitoring/Reporting; OM = Operation/Maintenance; PA = Plug/Abandonment; PR = Pressure/Rate; PV = Permit Violation-Other; UI = Unauthorized Injection; US = USDW Contamination

Types of Enforcement Actions: AO = Administrative Order; CB = Comence Bond Mtg.; CD = Consent Decree; CO = Consent Order; CR = Criminal Referral; CV = Civil Referral; FI = Field Inspection; IO = Informal Action-Other; JO = Judicial Order-Other; NV = Notice of Violation; PS = Pipeline Severence; SC = Show Cause Mtg.; SI = Shut In; UO Unilateral Order

COMPANY NAME and ADDRESS LIST

Report Description

This report lists Active, Inactive, or All companies in the COMPANY Table. The report can be sorted by Company Number or Company Name, and requested for All companies, a range of Company Numbers, or for a range of Company Names.

RBDMS Report Name: rptCompany List

COMPANY NAME and ADDRESS LIST

Company# / DOE#	Stat / Prb	Company Name / Contact Name/Title	Address	Orgztn Rpt / Phone	Financl Rpt / X	Qlfd Sec/St / Fax	O	I	B	D	T	G	H	P
									1	2	3	4	5	6
1000.01	A	**Amoco Production Company, The**	P.O. Box 569	1/1/90	2/2/94	1/5/85	Y	Y	Y	Y		Y		
1000		Kobbe	Powell, OH 82435	**307-909-9090**					Y	Y	Y	Y		Y
				Mr. R. E. Carter 307 754 7900										
1000.02	A	**Amoco Production Company**	P. O. Box 1400	1/1/90	1/2/91	4/4/84	Y	Y						
1000		Wiggs	Riverton, UT 82501	**(307) 857-22**		**(307) 857-22**			Y		Y			
				Has sig auth. Denver Contact Gary Austin, AMC03										
1000.03	A	**Amoco Production Company**	ATTN: James A. Beckstrom B	3/5/93	9/3/92	2/22/90	Y	Y			Y			
1000		Hamrick	1670 Broadway	**(303) 830-51**					Y	Y	Y		Y	
			Denver, CO 80201											
1001.01	A	**Amerada Hess Corporation**	HCR 2, Box 10				Y							
1001		Allen	Keene, ND 58763								Y		Y	
				1 SWD well on Ft. Berthold, ND.										
1002.01	A	**Conoco Inc.**	800 Werner Court	2/2/90	1/1/87	5/5/60	Y	Y			Y			
1002		Brown	Casper, WY 82601 1311	**(307) 261-73**		**(307) 261-73**			Y	Y	Y			
				2/92 new Div. Mgr. Scott Whitelaw still on staff.										
1002.02	A	**Conoco, Inc.**	800 Werner Court	5/5/90			Y	Y			Y			
1002		Brown	Casper, WY 82601	**307 261 7312**		**307 856 6067**			Y	Y	Y	Y		
				Roger Brown replaced William Brister										

Total Number of Records in Report: 6

LIST OF BONDS

Report Description

This report lists all Bonds or all Bonds for a specified Operator or Guarantor. The report can be sorted by Operator name, Guarantor name, or State Bond Number.

RBDMS Report Name: rptBonds

BONDS

All Records sorted by Bond Number

Bond No. **12345**
Purpose **Plugging Bond - P**
Status **Active - A**
Type Instrumnt **Financial Statement - F**
Penal Sum
Max Number of Wells

Guarantor **1000.01** **Amoco Production Company, The**
Guarantor Bond Number **23456**
Operator **1000.01** **Amoco Production Company, The**

Dates:						
	Effective	1/1/94	Expiration	12/1/94	Cancellation	
	Lst Rvwd	6/1/94	Released		Lst Modify	2/24/95

Comments

Total Number of Records in Report: 1

WELLS COVERED BY EACH BOND

Report Description

This report lists all Wells covered by a specified Bond. The report is sorted by County, Field, and API Well Number.

RBDMS Report Name: rptBondWells

Bond No. **12345**
Purpose **Plugging Bond-P**
Status **Active-A**
Typ Instrumnt **Financial Statement-FS**
Penal Sum
Max Number of Wells

Guarantor **1000.01 Amoco Production Company, The**
Guarantor Bond Number **23456**
Operator **1000.01 Amoco Production Company, The**

Dates:	Effective	1/1/94	Expiration	12/1/94	Cancellation	
	Lst Rvwd	6/1/94	Released		Last Modify	2/24/95

Comments

WELLS COVERED BY BOND

County **Adams**
Oil Field **Northwest Cabin Creek Est**
API No. **26-001-00001-02-01** Typ **Enhanced Oil Recover** Status **Active Injection-AI** Status Dt **0:00**
Well Name **D. Henderson No. 2** Prmt App **1/1/80**
Operator **1000.01 Amoco Production Company, The** Spudded
Driller **1008.03 Texaco Exploration and Product** Cmpltd

Total Number of Records in Report: 1

OIL and GAS FIELDS LIST

Report Description

This report lists all Oil and Gas Fields by State Field Number or alphabetically by Field Name.

RBDMS Report Name: rptFields, rpt FieldCnty

OIL and GAS FIELDS LIST

State Field No **10** Name **AGAWAM** Dt Discovrd Rules ☐ Mod Dt **9/21/94**
US Field No Discovery Well Lctn Yr Abandnd Oil ☐ Assc Gs ☐ N-Assc Gs ☐

St	Cnty	Name
26	1	Adams
26	11	Billings
26	16	Yellow Tail

Hazardous Conditions

State Field No **100001** Name **Northwest Cabin Creek Est** Dt Discovrd **1985 01 01** Rules ☒ Mod Dt **11/18/94**
US Field No **100001** Discovery Well Lctn **16 10.0 N 123 W 6TH** Yr Abandnd Oil ☒ Assc Gs ☒ N-Assc Gs ☒

St	Cnty	Name
26	1	Adams

Hazardous Conditions

State Field No **100002** Name **High Mountain Resort West** Dt Discovrd Rules ☒ Mod Dt **11/18/94**
US Field No **100002** Discovery Well Lctn **102 22.5 N 11 E 1ST** Yr Abandnd Oil ☒ Assc Gs ☒ N-Assc Gs ☒
Hazardous Conditions

State Field No **100003** Name **Bettin' on the Big One** Dt Discovrd Rules ☒ Mod Dt **11/18/94**
US Field No **100003** Discovery Well Lctn **14 14.0 N 22 W 2ND** Yr Abandnd Oil ☒ Assc Gs ☒ N-Assc Gs ☒
Hazardous Conditions

State Field No **100004** Name **Southwest Pennel Waters** Dt Discovrd Rules ☒ Mod Dt **11/18/94**
US Field No **100004** Discovery Well Lctn **1 14.0 S 14 E 1ST** Yr Abandnd Oil ☒ Assc Gs ☒ N-Assc Gs ☒
Hazardous Conditions

State Field No **100005** Name **Sooner Trend Expanded** Dt Discovrd **1962 12 12** Rules ☒ Mod Dt **11/18/94**
US Field No **100005** Discovery Well Lctn **10 100.5 N 100.5 E 1ST** Yr Abandnd Oil ☒ Assc Gs ☒ N-Assc Gs ☒

St	Cnty	Name
26	3	Billings

Hazardous Conditions

State Field No **100006** Name **Big Gultch City Field** Dt Discovrd Rules ☒ Mod Dt **11/18/94**
US Field No **100006** Discovery Well Lctn **12 121.5 N 121.5 E 1ST** Yr Abandnd Oil ☒ Assc Gs ☒ N-Assc Gs ☒
Hazardous Conditions

State Field No **100007** Name **Very Very Good Show** Dt Discovrd Rules ☒ Mod Dt **11/18/94**
US Field No **100007** Discovery Well Lctn Yr Abandnd Oil ☒ Assc Gs ☒ N-Assc Gs ☒

St	Cnty	Name
26	3	Billings

Hazardous Conditions

GEOLOGIC FORMATIONS LIST

Report Description

This report lists all Geologic Formations by State Formation Code, AAPG Code, Industry Code, or Formation name.

RBDMS Report Name: rptFormatn

GEOLOGIC FORMATION LIST

State Code	Name	AAPG Code	Industry Code	Lithology-comment
AVONPRK	AVON PARK FRACTURED DOLOMITE	182AVNP	182AVNP	
BILLING	BILLINGS TWIN CAT CREEK	182BILL	182BILL	
CODL	NIOBRARA	114	721	
DSND	DAKOTA 'D' SAND	118DSND	713	permeable sandstone, zone generally used for disposal of oilfield wastes
KANSAS	KANSAS CITY	324KNS	543KANS	Highly fractured dolomite and granite developed from an astroblem
MORRSN	MORRISON	123	615MORSN	Dolomitic fractured limestone
nIOBR	NIOBRARA	112NIABR	731NIABR	sandstone with intermittent dolomite
TULSA	TULSA OKLAHOMA EXPANDED	123TULSA	123TULSA	Highly permeable sandstone

LIST OF POOLS

Report Description

This report lists all Pools / Reservoirs by Pool Number, State Oil and Gas Field Number, or Pool Name. The report also lists the Geologic Formations contained within each Pool.

RBDMS Report Name: rptPool, rptPoolFmtn

POOLS/RESERVOIRS LIST

Pool 1 Name **Very Permeable** Year Discovered **1990**

Field **100003** Name **Bettin' on the Big One** Mod Dt **2/22/95**

OG Dsgntn Oil ☐ Gas-Non ☐ Gas-A ☐ Unitized ☐ Prs Mnt ☐

Formation Code and Name	
TULSA	TULSA OKLAHOMA EXPANDED

Recovery Mthd/Sub	Prim Dr	Area	Porosity	Permeability	NtPay	H2S PPM	TDS	Temp

	Oil FVF	Gas FVF	Gs BTU	GOR	Gas CF	Wtr Sat	Rsvr Prs	GRAVITY
INITIAL								Oil
CURRENT							0	Gas

Field Rules: Comments:

Pool 2 Name **Oklahoma City Deep** Year Discovered **1928**

Field **100003** Name **Bettin' on the Big One** Mod Dt **11/29/94**

OG Dsgntn Oil ☐ Gas-Non ☐ Gas-A ☐ Unitized ☐ Prs Mnt ☐

Formation Code and Name	
AVONPRK	AVON PARK FRACTURED DOLOMITE

Recovery Mthd/Sub	Prim Dr	Area	Porosity	Permeability	NtPay	H2S PPM	TDS	Temp

	Oil FVF	Gas FVF	Gs BTU	GOR	Gas CF	Wtr Sat	Rsvr Prs	GRAVITY
INITIAL								Oil
CURRENT							0	Gas

Field Rules: Comments:

Pool 3 Name **Yellowstone Cross Creek** Year Discovered

Field **100002** Name **High Mountain Resort West** Mod Dt **12/5/94**

OG Dsgntn Oil ☐ Gas-Non ☐ Gas-A ☐ Unitized ☐ Prs Mnt ☐

Formation Code and Name	
KANSAS	KANSAS CITY

Recovery Mthd/Sub	Prim Dr	Area	Porosity	Permeability	NtPay	H2S PPM	TDS	Temp

	Oil FVF	Gas FVF	Gs BTU	GOR	Gas CF	Wtr Sat	Rsvr Prs	GRAVITY
INITIAL								Oil
CURRENT							0	Gas

Field Rules: Comments:

POOLS/RESERVOIRS LIST

Pool **4** Name **Cross Creek** Year Discovered

Field **100004** Name **Southwest Pennel Waters** Mod Dt **12/5/94**

OG Dsgntn Oil ☐ Gas-Non ☐ Gas-A ☐ Unitized ☐ Prs Mnt ☐

Formation Code and Name	
MORRSN	MORRISON

Recovery Mthd/Sub	Prim Dr	Area	Porosity	Permeability	NtPay	H2S PPM	TDS	Temp

	Oil FVF	Gas FVF	Gs BTU	GOR	Gas CF	Wtr Sat	Rsvr Prs	GRAVITY
INITIAL								Oil
CURRENT							0	Gas

Field Rules:

Comments:

Pool **5** Name **Smithton River** Year Discovered

Field **100001** Name **Northwest Cabin Creek Est** Mod Dt **12/5/94**

OG Dsgntn Oil ☐ Gas-Non ☐ Gas-A ☐ Unitized ☐ Prs Mnt ☐

Formation Code and Name	
CODL	NIOBRARA

Recovery Mthd/Sub	Prim Dr	Area	Porosity	Permeability	NtPay	H2S PPM	TDS	Temp

	Oil FVF	Gas FVF	Gs BTU	GOR	Gas CF	Wtr Sat	Rsvr Prs	GRAVITY
INITIAL								Oil
CURRENT							0	Gas

Field Rules:

Comments:

LIST OF RIGS

Report Description

This report lists all Rigs by Driller and Rig Numbers.

RBDMS Report Name: rptRigs

LIST OF RIGS

Driller	Rig Number	Status	Description
1000.01 Amoco Production Company, The	**1**	**A**	
1002.01 Conoco Inc.	**2**	**A**	

Total Number of Rigs Listed = 2

COUNTIES LIST

Report Description

This report lists Counties by API County Number or alphabetically by County Name.

RBDMS Report Name: rptCounty

COUNTY LIST

State Number	State	API County No.	County Name	FIPS#
23	MS	1	Adams	
23	MS	3	Alcorn	
23	MS	5	Amite	
23	MS	7	Attala	
23	MS	9	Benton	
23	MS	11	Bolivar	
23	MS	13	Calhoun	
23	MS	15	Carroll	
23	MS	17	Chicksaw	
23	MS	19	Choctaw	
23	MS	21	Claiborne	
23	MS	23	Clarke	
23	MS	25	Clay	
23	MS	27	Coahoma	
23	MS	29	Covington	
23	MS	31	De Soto	
23	MS	33	Forrest	
23	MS	35	Franklin	
23	MS	37	George	
23	MS	39	Greene	
23	MS	41	Grenada	
23	MS	43	Grenada	
23	MS	45	Hancock	
23	MS	47	Harrison	
23	MS	49	Hinds	
23	MS	51	Holmes	
23	MS	53	Humphreys	
23	MS	55	Issaquena	
23	MS	57	Itawamba	
23	MS	59	Jackson	
23	MS	61	Jasper	
23	MS	63	Jefferson	
23	MS	65	Jefferson Davis	
23	MS	67	Jones	
23	MS	85	Lincoln	
26	MT	1	Adams	
26	MT	2	Door	
26	MT	3	Billings	
26	MT	4	Write	
26	MT	5	Smithton	
26	MT	6	Jackson	

COUNTY LIST

State Number	State	API County No.	County Name	FIPS#
26	MT	7	Waddle	
26	MT	8	Midland	
26	MT	9	Yorktown	
26	MT	10	Anchorage	
26	MT	11	Billings	
26	MT	12	Helena	
26	MT	13	Georgia	
26	MT	14	Misty	
26	MT	15	Morgan	
26	MT	16	Yellow Tail	
26	MT	17	Brown	
26	MT	34	DuPont	
26	MT	41	Steel	
26	MT	56	Write	
26	MT	57	Bright	
26	MT	89	Collins	
26	MT	94	Simons	
26	MT	95	Green	
26	MT	96	Blue	
26	MT	122	Purple	
26	MT	123	Violet	
26	MT	142	Alum	
26	MT	154	Flower	
26	MT	198	Broward	

RBDMS

Risk Based Data Management System Administrators Guide

Version 4.0

Manual for

the Alaska Oil & Gas Conservation Commission;
the Mississippi State Oil & Gas Board;
the Montana Board of Oil & Gas Conservation; *and*
the Nebraska Oil & Gas Conservation Commission.

Prepared for

The Underground Injection Practices Research Foundation of the GWPC

Prepared by

CH2M Hill, Inc.;
Digital Design Group, Inc.; *and*
Virtual Engineering Solutions, Inc.

April 1995

RBDMS Administrators Guide

Version 4.0

April 1995

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RBDMS Hardware and Software Requirements

The following tables detail the minimum and recommended hardware and software requirements to operate RBDMS.

Hardware Configuration

Minimum	Recommended
80386 PC	80486 or Pentium PC
6 Mb RAM	8+ Mb RAM
VGA Monitor	Super VGA Monitor
120 Mb Hard Disk	Access compatible LAN with 500 Mb+ disk space available[1]
HP III Laser Printer	Postscript Laser Printer

[1]For multiple user access to the database.

Software Requirements

Minimum
DOS 5.0 +
Windows 3.1
Microsoft Access 2.0

Optional
Microsoft Visual Basic version 3.0
Windows 3.11 or Windows NT Version 3.5
Microsoft Excel Version 5.0
Microsoft Word Version 6.0
Wellbore

Installing RBDMS

The RBDMS installation is from two 3.5" high density diskette. The diskettes contain two Access MDB files (RBDMS.MDB and RBDMSDTA.MDB) and some other supporting files, in compressed installation files. The disk has an installation program to setup the software which is automatic: Please perform the following steps to install the RBDMS program:

1. Ensure that you have at least 6 Mb disk space available
2. Insert the RBDMS, DISK #1 into a diskette drive
3. Choose "File/Run" from Program Manager main menu and if the diskette is inserted in drive A: then enter the following **A:SETUP <enter>** or run the **SETUP.EXE** from the File Manager.
4. This will start a standard Window Setup program and install the files from the floppies to the hard disk.

5. Create a program manager menu item with a startup command similar to the following:
   C:\ACCESS\MSACCESS.EXE C:\RBDMS\RBDMS.MDB

Packing List:

Disk1:

D2HLINK.DL_
D2HTOOLS.DL_
DATA.1
INSO762.LIB
SETUP.BMP
SETUP.EXE
SETUP.INS
SETUP.PKG

Disk 2

DATA.2

Installing RBDMS On-line Help System

RBDMS includes a context sensitive on-line help system. The help system is also automatically installed during the above setup procedure.

RBDMS Security

Prior to using RBDMS it will be necessary to create Microsoft Access groups with appropriate access/security privileges. RBDMS uses the security capabilities of Microsoft Access. Users are granted rights to RBDMS by inclusion in specific Access security groups. As a minimum you should create two groups:

1. RBDMS_ALL - all access rights (read, write, delete, update, etc.)
2. RBDMS_READ - read only or "Executive" access rights

Users of RBDMS must be a member of one of these groups before attempting to open the RBDMS.MDB. The system administrator is responsible for assigning users to groups. The system administrator should contact one of the system developers at CH2M HILL or DDG or VES to get information on setup of these groups.

To create the new groups the system administrator should perform the following steps:

1. Start Microsoft Access and open any MDB file.
2. Select the database window.
3. Choose Security/Groups from the Access default menu.
4. Click the "New" button.
5. Enter the new group name and personal ID.

The personal ID for each group should be known only to the system administrator(s). Anyone with knowledge of the group names and personal Id's could compromise security.

After creating the groups, create the users who will use RBDMS. To create new users perform the following steps:

1. Choose Security/Users from the Access default menu.
2. Click the "New" button.
3. Enter the new user name and personal ID.
4. Click "OK"
5. Add the user to the appropriate group(s) by selecting the group and clicking "Add>>".
6. Click "OK" when all of the groups have been added to the "Member of:" list.

Users that are members of the RBDMS_READ group will only be able to use the "Inquiry" mode. They will not be able to edit or add new data to the database. Members of RBDMS_ALL will be able to update and add new data to all tables in RBDMS.

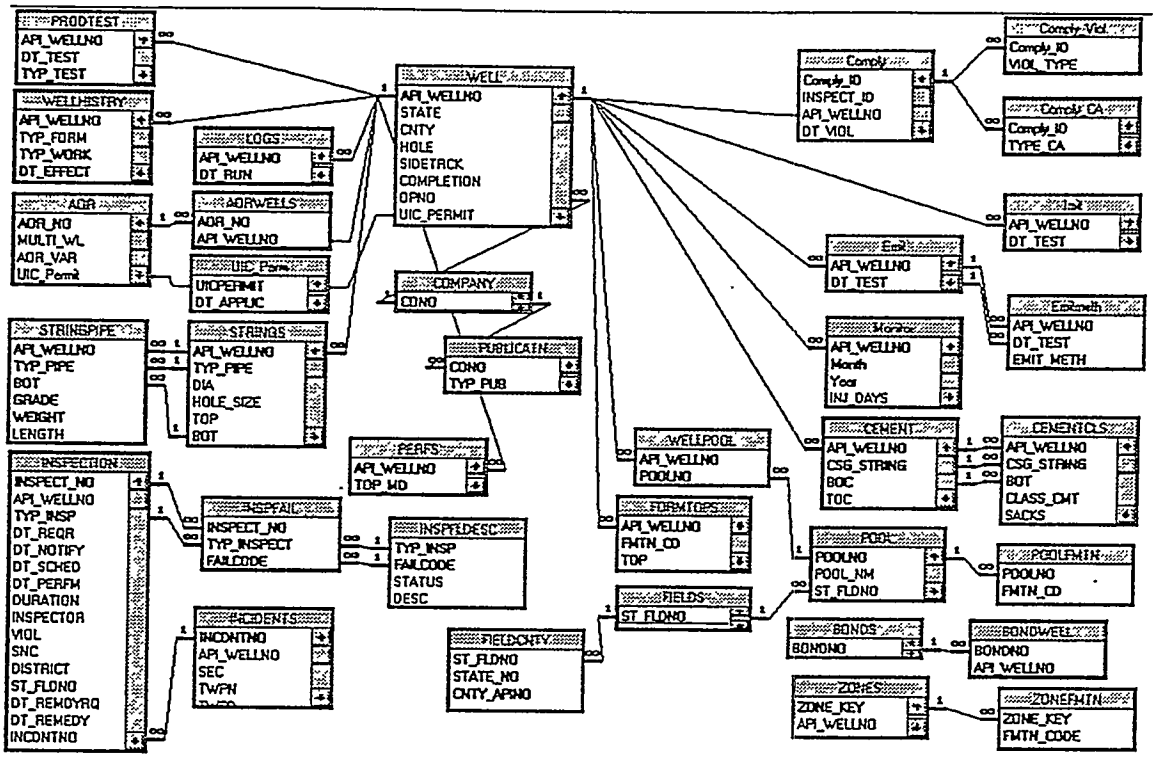
The administrator can create additional groups with security privileges specific to the groups needs. For instance the administrator could create a group called "RBDMS_MONITOR". This group might have rights to edit and create records in the Monitor table but read-only access to other tables.

User and Group information for Access is normally stored in a file called SYSTEM.MDA. If you have a PC network and have installed Access on each PC's local disk then each PC will have its own SYSTEM.MDA file stored in the local Access directory. In order to simplify administration of users and groups it is recommended that you change each PC's system database setting to use a common SYSTEM.MDA file shared on the network. You can change the SYSTEM.MDA setting using the Workgroup Admin (WRKGADM.EXE) program or editing the MSACC20.INI file and changing the SystemDB setting.

Table Relationships

The graphic displayed below is a snapshot of the Access Relationship Editor Screen. The lines between fields in the tables represent table relations. If you need to temporarily disable a referential integrity check perform the following steps.

- Open the RBDMSDTA.MDB database with Access.
- Choose Edit/Relations from the Access menu.
- Double Click the line representing the relationship between to tables.
- Remove the check from the Enforce Referential Integrity check box.
- Close Referential Integrity Editor (save changes) and open RBDMSDTA.MDB.

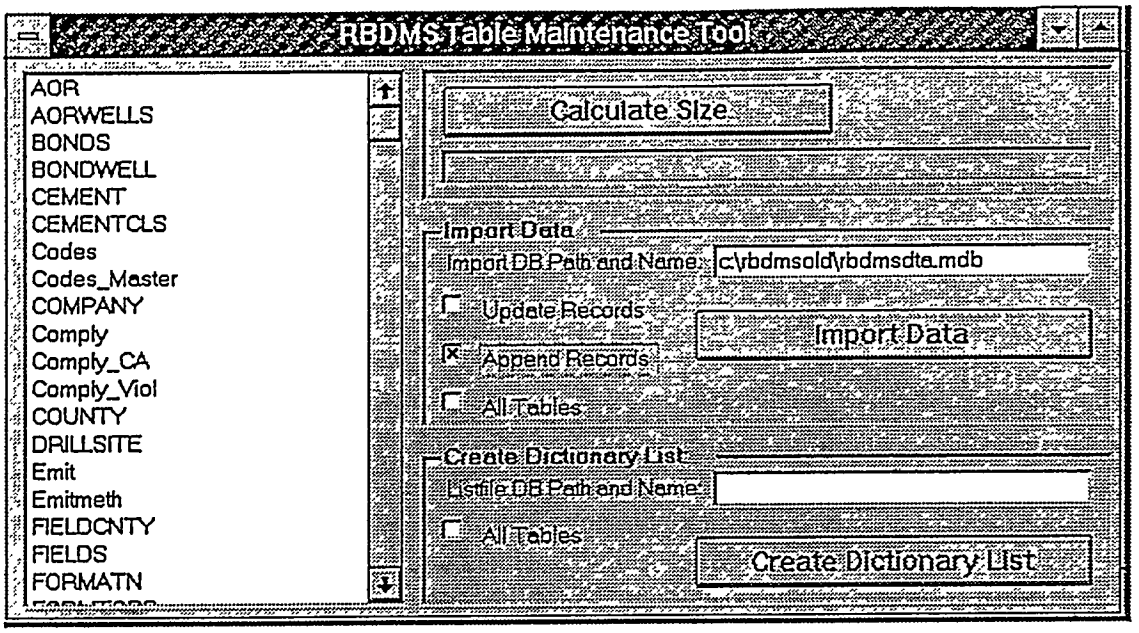


Migrating Data from Earlier Versions of RBDMS

Due to additions and modifications to the RBDMS table structures it is sometimes necessary to transfer data from the previous RBDMS tables to the new tables. To facilitate this transfer we have developed a utility to perform the transfer automatically.

Please perform the following steps to transfer data to the latest version of RBDMS.

1. Ensure that you have adequate disk space to store the old and new versions of the database.
2. Install the new version of RBDMS into an empty directory (e.g. C:\RBDMSNEW\)
3. Run Access 2.0 and open the new RBDMSDTA.MDB file (e.g. C:\RBDMSNEW\RBDMSDTA.MDB)
4. Click on the Form button on the database window and double click the form "frmTableMaintenance". The following form will appear.



5. Enter the path to the previous version RBDMSDTA.MDB file (e.g. c:\rbdmsold\rbdmsdta.mdb)
6. Check the boxes for "Append Records" and "All Tables". "Update Records" should not be checked.

Click the "Import Data" button. The program will begin importing data. The import could take several hours for large databases.

Building Practice Databases

A "practice" RBDMSDTA.MDB is useful for training new users, testing update and append queries or evaluating new or modified reports and forms using data with known results. Several macros exist in the RBDMSDTA.MDB database to assist in creating and maintaining a practice database.

The "mcrBuildRandomData" macro will create random EMIT, IMIT, UIC Permit and other records associated with each of the records in the WELL table. Create some records in the WELL table before you run this macro or it will not do anything.

The "mcrDeleteAllRecords" macro deletes all records from all tables in RBDMSDTA.MDB. The "mcrDeleteAllRecordsExceptWell" macro deletes all records except for the WELL table records.

The administrator should delete all three of these macros from the production database for security.

Attaching Tables in RBDMSDTA.MDB

RBDMS uses two Access "MDB" databases to store its objects. All of the table objects are stored in the RBDMSDTA.MDB. All other objects such as forms, queries, macros,

reports and modules are stored in RBDMS.MDB. If you change the location of the RBDMSDTA.MDB file you will need to reattach all of the tables to RBDMS.MDB with the new location. You *could* manually delete all of the attached tables and then manually reattach them at their new location. An easier way is to open the form "frmAttach" by clicking the "Attach Table" button on the Well Selection Criteria Form, enter the new path to the RBDMSDTA.MDB, and clicking the "Attach Tables" button. If you are unsure of the new database location press the button with "..." to the right and use the common file browse dialog to select the RBDMSDTA.MDB file.

Maintaining the RBDMS Code Table

RBDMS uses a CODES table to store a variety of codes used in the system. Each record in the table has fields to specify the type of code, the code itself, and a description of the code. Entries in the CODES table can be maintained by directly editing the Codes_Master and Codes tables, or preferably the codes should be maintained by opening the "frmCodes" form from the database window and editing codes using the form.

Please note that updating or deleting a code from the codes table does not update or delete any records from the database. If you decide to modify or delete a code you should make the corresponding change to records in the database that use the code.

Maintaining Selection and Sort Criteria Options

RBDMS makes extensive use of a form used to specify selection criteria and sort options in a form or report.

The fields available for selecting and sorting can be modified using the frmCombo form available in the database window. To add a selection/sort field to a specific form or report scroll or use the find button to locate to the object name that matches the form or report name. After repositioning to the appropriate record all of the fields available for selecting or sorting for the current report or form are displayed. To add a new field move to the new record immediately after the last record and key the data in. Use the "TableName.FieldName" format and enter a description as you would like it to appear in the combo boxes. The field you enter must match a field available in the form or reports record source or an error will occur when you try to use it.

You may want to delete selection criteria from non-indexed fields on large tables to disable a user from creating a selection criteria that takes too long to run.

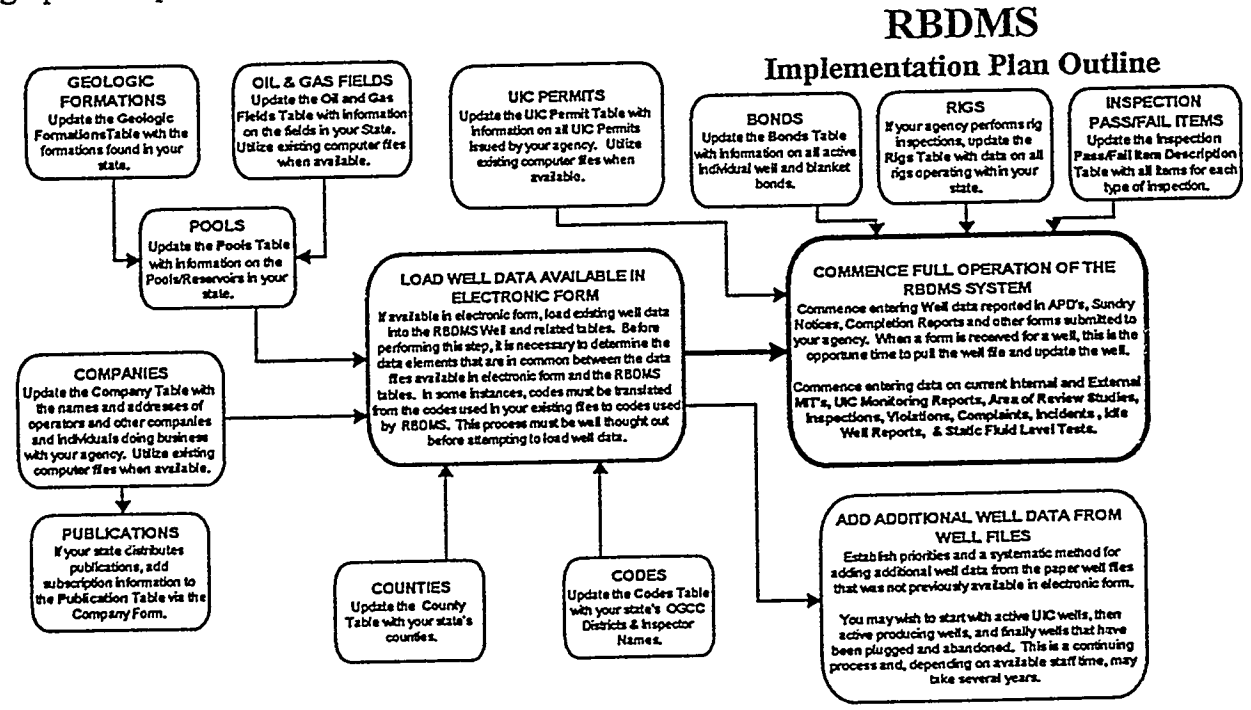
RBDMS Startup Implementation Plan

Converting an existing data management system to RBDMS or starting RBDMS from "scratch" can be a daunting task. Populating the RBDMS tables with data is a significant effort. This topic is intended to give you some guidelines for developing your own

RBDMS implementation plan. Try to breakup the implementation into smaller more manageable tasks. Some suggested startup tasks are as follows:

- Codes - Update the **Codes** Tables with your state's OGCC districts and inspector names.
- Company - Update the **Company** Table with the names and addresses of operators and other companies doing business with your agency.
- County - Update the **County** Table with your state's counties.
- Pool - Update the **Pool** table with information on the Pools/Reservoirs in your state. This task is dependent on completion of the following two tasks:
    - Formatn - Update the **Geologic Formations** Table (FORMATN) with the formations found in your state.
    - Fields - Update the **Oil and Gas Fields** Table (FIELDS) with information on the fields in your state.

All of the above tasks (except "Pool") do not depend on other tasks to be performed and can be updated independently. It is not necessary to populate all fields in each of the tables. Some database fields may be updated later or may not be needed at all for your state. All of the tables listed above need not be populated if you do not intend to use the corresponding field(s) in the Well Table. For example the Pool table can be left empty if the pool numbers will not be entered into the Well Table. Please refer to the Table Relationships topic for a graphic of table relationships and referential integrity checks. A graphical representation of these tasks is presented below.



If you are converting from an existing data management system a significant amount of manual data entry can be eliminated by using Access append queries. For fields that use different codes than those used by RBDMS the codes will need to be translated to RBDMS codes. A table called "tblTranslate" has been created in RBDMS.MDB to store translated codes. Several examples of append queries that use the "tblTranslate" table have been included in RBDMS.MDB. These append queries all start with "NE" and were used to import non-normalized data from a dBase table. Similar techniques can be used to import data from any data source that Access is capable of reading.

The COMPANY table is used to store information on drillers, operators, etc. Each company is specified by a unique key that is composed of an integer part to specify the company (e.g. 1001 might be AMOCO) and a number after the decimal point to indicate the location for the company (e.g. 1001.01 might be AMOCO in Houston, TX). If the company information exists in paper form only, then you will need to use the Company form in RBDMS to manually enter the information.

The WELL table is the core table in RBDMS. Most other tables have relational linkages to the Well table. It is unlikely that you will have all of the information for the 144 fields that exist in the WELL table. The only required field is the API_WELLNO. It is suggested that you build this table with the information that is readily available and add other items as appropriate.

The sequence of building additional tables will depend on availability of data and agency priorities. Tables for internal MIT's, external MIT's, Area of Review's, Compliance, and UIC Permits can all be developed independently.

CH2M HILL, DDG, and VES will be available to provide assistance to the states in migrating data to RBDMS. However, it will be the responsibility of each state to maintain their data and perform the migration procedures.

Backup, Restore, and Maintenance Procedures

An adequate backup procedure must be implemented to protect from potential disasters such as theft, fire, flood, hardware failure, operator error, etc.

Microsoft Access stores all of its objects in a MDB file. All of the table objects are stored in RBDMSDTA.MDB and other objects such as forms, queries, reports, macros, and modules are stored in RBDMS.MDB. The RBDMSDTA.MDB should be backed up daily. RBDMSDTA.MDB should not be open for updates during the backup (midnight is usually best). Other RBDMS files such as RBDMS.MDB, RBDMS.HLP and RBDMS.DHN need only be backed up after updates, such as adding a new form or report, to the RBDMS.MDB file. The SYSTEM.MDA file should be backed up after new users or groups are created or edited.

The following recommendations should also be implemented:

- Maintain multiple backup copies and implement a tape rotation system.
- Keep at least one recent backup at an offsite location.
- Backups should be stored in secure location(s).
- Restore procedures should be tested periodically.

After many updates and deletions the database will become fragmented and not make the best use of disk space. To correct this the MDB files (particularly the RBDMSDTA.MDB file) should be periodically compacted. Before compacting the database make sure that no one is accessing the file and that you have adequate disk space for the original and compacted versions of the database. When you compact the file use "RDMSDTA.MDB" for the new database name. Access will create a temporary file while building the compacted database and will delete the old MDB and rename the new one when completed.

If a system crashes or loses power before exiting Access you may need to repair your MDB file(s). Please refer to the Microsoft Access User's Guide (page 628) for instructions on recovering a damaged database.

Enhancing Performance

The performance of RBDMS is dependent on the software and hardware environment that it operates under. Microsoft makes the following recommendations for optimizing Access 2.0 performance:

* Note that the optimal setting for each item may vary with the type of computer on which you run Microsoft Access. It is usually best to change only one setting at a time and then monitor database performance for improvement.

To optimize the general performance of Microsoft Access version 2.0:

1. Use the Add-in Manager to uninstall library databases that contain Microsoft Access Wizards, builders, and other add-ins you do not want. This reduces Microsoft Access memory consumption and load time.

2. Make more memory available by closing applications and terminate-and-stay-resident (TSR) programs that you are not using. Usually, these applications are loaded from the AUTOEXEC.BAT and CONFIG.SYS files.

3. Make sure your Microsoft Windows virtual memory (swap file) setting is large enough, and set to "permanent" rather than "temporary" memory. In general, the virtual memory setting plus available RAM should be no less than 25 MB. It should be more if you will be running several memory-intensive applications simultaneously. To check or change the virtual memory setting, start Microsoft Windows Control Panel. Double-click the 386 Enhanced icon, then choose Virtual Memory. To change the setting, choose Change. Make sure to select "Permanent" in the Type box. Choose OK

to save your changes. Please see the Microsoft Windows "User's Guide" for more detailed information on virtual memory settings.

4. Periodically run a disk defragmentation utility such as MS-DOS version 6.0 Defrag to keep files in contiguous clusters on your hard disk, making file access quicker in general. If you do not defragment your hard disk, the time it takes for MS-DOS to retrieve your files may increase since it may have to go to several physical locations on the disk to retrieve the entire file.

5. Use 32-bit disk access, and 32-bit file access in Windows 3.11 and later. In Windows Control Panel, double-click the 386 Enhanced icon, choose the Virtual Memory button, then choose the Change button. Make sure the Use 32-Bit Disk Access check box is selected. Also select the Use 32-Bit File Access option, if it is available in your version of Windows.

6. Increase the RAM on your computer. Microsoft Access requires a minimum of 6 MB, but additional RAM improves performance.

7. Make the WinCacheSize parameter for SMARTDrive (or similar settings for other disk caches) in your CONFIG.SYS file no larger than necessary for effective caching. For computers with limited RAM, try completely disabling software caching such as SMARTDrive.

8. Do not use any of your RAM for a RAM disk.

9. Set the Buffers parameter in your CONFIG.SYS file to at least 40.

10. When you are opening databases that are not in a multi-user environment, select the Exclusive check box in the Open Database dialog box.

11. When you are using databases that other users do not need to share, install Microsoft Access and all your databases on your local hard disk rather than on a network server.

12. Create only as many indexes as necessary. Although indexes can speed access to data, it is possible to "over index" a table so that it is slow adding, deleting, and updating records.

13. Create indexes for joined fields.

14. In a multiple-field index, use only as many fields in the index as necessary.

15. Use Rushmore query optimization in your queries whenever possible. For detailed information on how to do this, search for "Rushmore technology" then "Optimizing Queries with Rushmore Technology" using the Microsoft Access Help menu.

16. If you have a wallpaper (full-screen background) bitmap on your Windows desktop, replace it with a solid color or pattern bitmap, or no bitmap at all. For a standard

VGA display, this can free about 256K of RAM. For a 1024 x 768 pixel display with 256 colors, this can free about 750K of RAM. (Your actual RAM savings depends on your video display.)

Installing the First Class Bulletin Board Software

To install the First Class software please perform the following steps from within Windows:

1. Insert the First Class installation disk in the A: drive.
2. From the Program Manager menu choose File/Run and enter "A:SETUP" for the program to run.
3. Install First Class in C:\FCWIN or choose another directory and modify the remaining instructions accordingly.
4. After First Class installation is complete, copy A:CH2MODEM.FCS to C:\FCWIN\SETTINGS\CH2MODEM.FCS
5. Modify the First Class item in Program Manager by clicking once on the item and choosing File/Properties from the menu. Enter "C:\FCWIN\FCCLIENT.EXE c:\fcwin\settings\ch2modem.fcs" as the command line for the program.
6. Configure your modem by selecting Service/Connection Setup/Modem from the First Class menu.

To use First Class double click the First Class icon and enter your user name (usually the first letter of your first name and your last name e.g. "BClinton") and your password

RBDMS Object Naming Standards

The RBDMS development team has adopted the Hungarian notation system recommended by Microsoft. The Hungarian notation system uses prefix and suffix codes on object names to identify object characteristics, for instance all form names should be prefixed with "frm".

Some RBDMS objects were created in Access before the adoption of Hungarian notation and were "grandfathered" in.

The following is a list of common prefixes:

- tbl - Table
- frm - Form
- qry - Select Query
- qrya - Append Query
- qryd - Delete Query
- qryu - Update Query

- mcr - Macro
- mnu - Menu
- Access Basic Variables
    - d - Double Precision
    - f - Single Precision
    - g - Global
    - l - Long Integer
    - s - String.
    - w - Integer
- Form Objects
    - btn - Command Button
    - chk - Check Box
    - cmb - Combo Box
    - lbl - Label
    - lst - List Box
    - opt - Option Button
    - txt - Text Box

RBDMS Design Criteria

Reduce Maintenance and Customization Costs by Minimizing Low Level Coding

- Forms, Reports, Queries and Menus are all designed using Access Design Tools.
- Access Basic is used only when necessary to add capabilities not available in the design tools.

Database is "Normalized" across all modules

- "One to Many" relationships can include as few or as many relations as required.
- Disk space is not wasted due to redundant entry of information
- Information is easier to maintain. Each item is stored in one location.

System is Scaleable

- Small to medium databases will work on a single PC running Windows 3.1 and Microsoft Access.
- Multiple users can share a RBDMS database over a LAN supported by Microsoft Access.
- RBDMS can be used in a Client/Server environment using ODBC drivers.

RBDMS Data is Easily Accessible from other Applications

- Applications can use the Access ODBC driver to directly connect to RBDMS data.
- Applications can use DDE and/or OLE to retrieve data from Access.
- Applications such as Excel 5.0 and Visual Basic 3.0 include tools to connect to Access Tables.