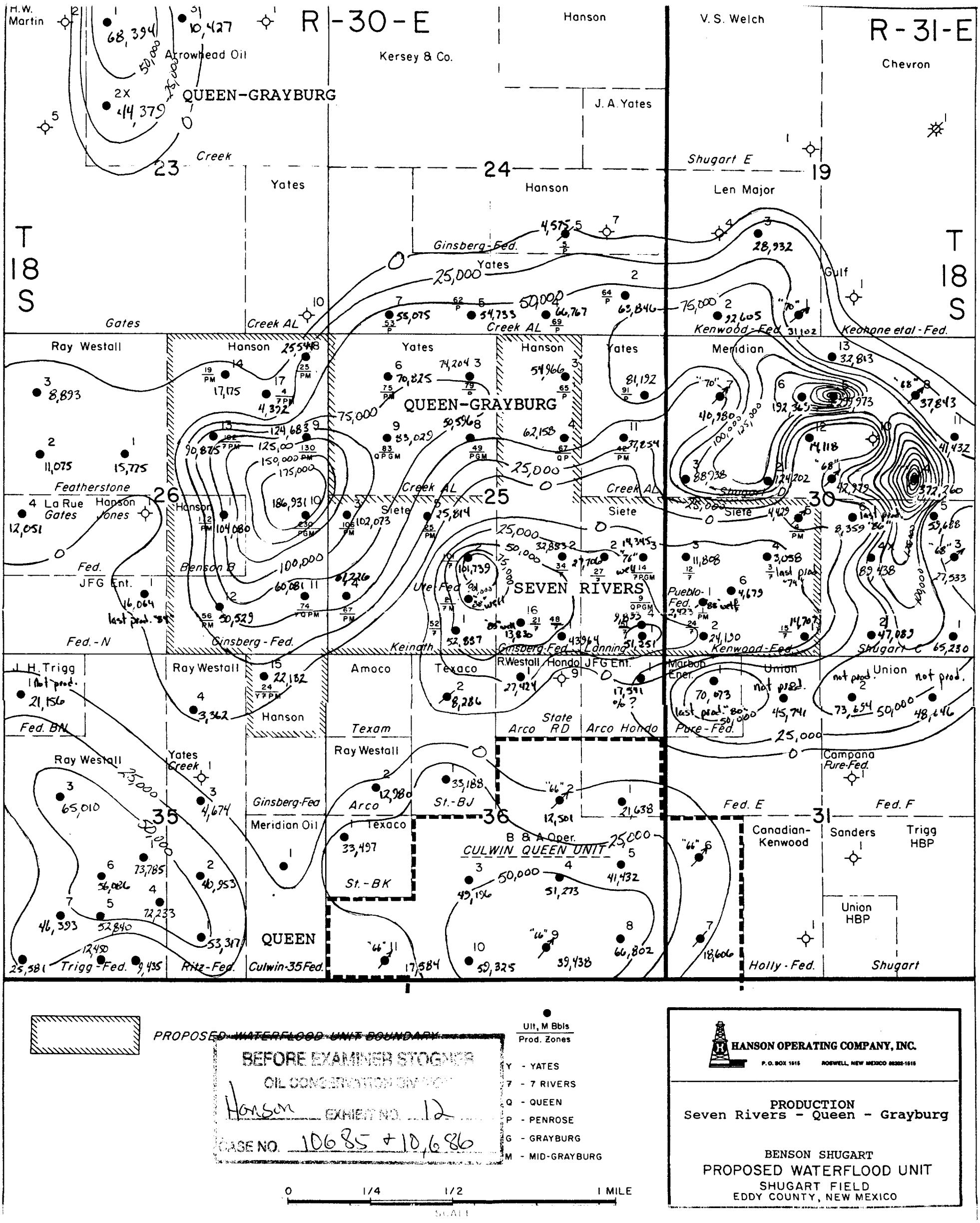


PROPOSED WATERFLOOD UNIT BOUNDARY

Ult, M Bbls
Prod. Zones

Y - YATES
7 - 7 RIVERS
Q - QUEEN
P - PENROSE
G - GRAYBURG
M - MID-GRAYBURG

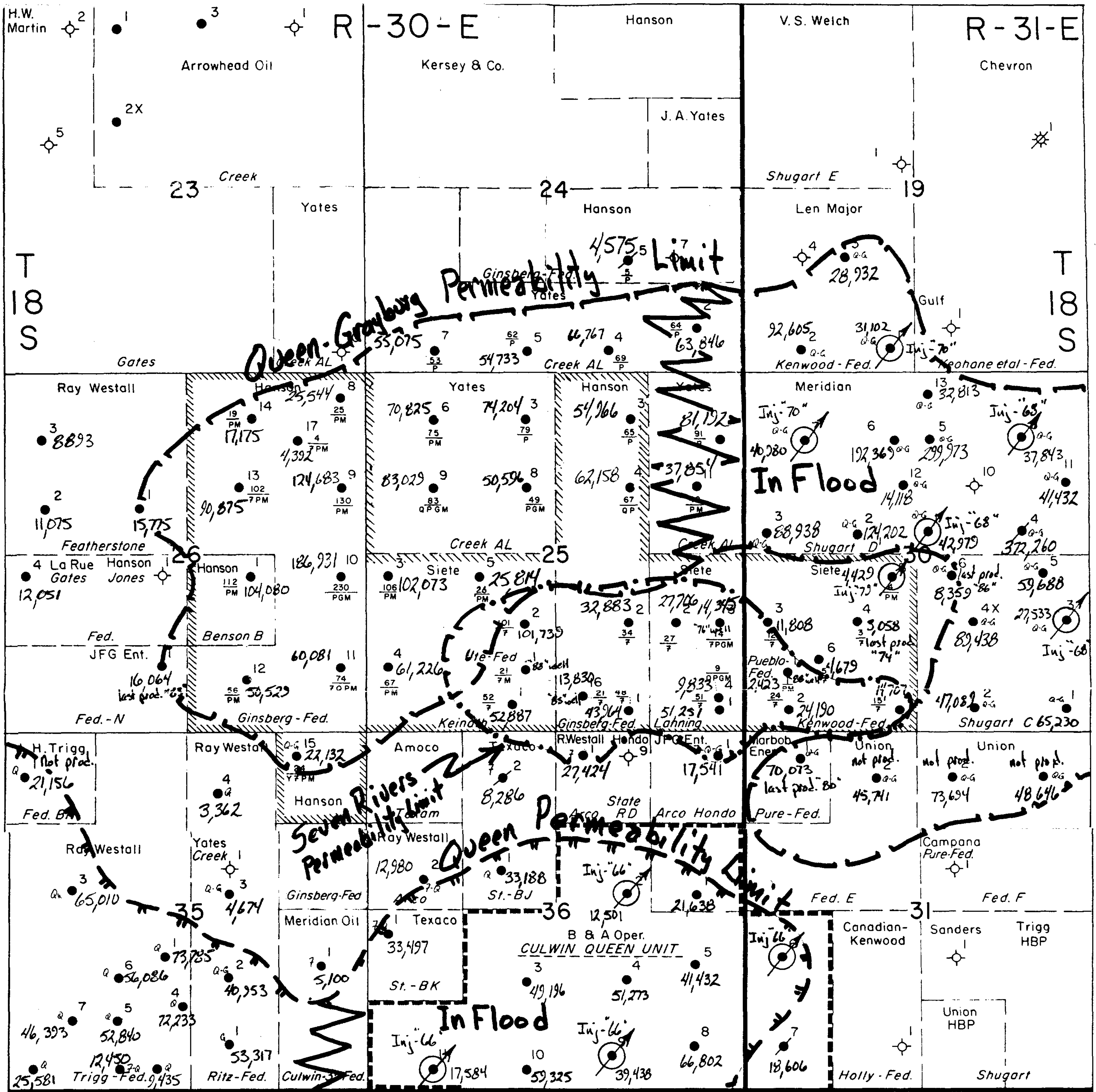
BEFORE EXAMINER STOGNER
OIL CONSERVATION DIVISION
Hanson EXHIBIT NO. 12
CASE NO. 10685 & 10686

0 1/4 1/2 1 MILE
SCALE

HANSON OPERATING COMPANY, INC.
P.O. BOX 1515 ROSWELL, NEW MEXICO 88202-1515

PRODUCTION
Seven Rivers - Queen - Grayburg

BENSON SHUGART
PROPOSED WATERFLOOD UNIT
SHUGART FIELD
EDDY COUNTY, NEW MEXICO



PROPOSED WATERFLOOD UNIT BOUNDARY

BEFORE EXAMINER STOGNER
OIL CONSERVATION DIVISION
Hanson EXHIBIT NO. 13
CASE NO. 10685 + 10686

Cult, M Bbls
Prod. Zones

Y - YATES
7 - 7 RIVERS
Q - QUEEN
P - PENROSE
G - GRAYBURG
M - MID-GRAYBURG

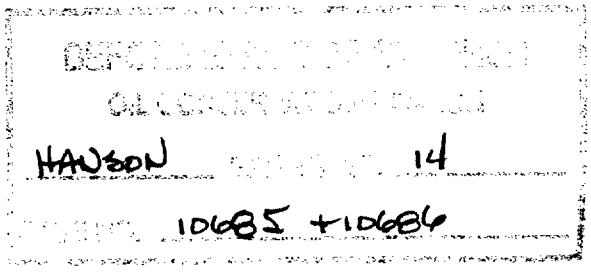
0 1/4 1/2 1 MILE
SCALE

HANSON OPERATING COMPANY, INC.
P.O. BOX 1515 ROSWELL, NEW MEXICO 88202-1515

BENSON SHUGART
SR-QN-GRYB PRODUCTION
WITH PERMEABILITY LIMITS

HANSON
PROPOSED WATERFLOOD UNIT
SHUGART FIELD
EDDY COUNTY, NEW MEXICO

FEASIBILITY STUDY
FOR A PROPOSED WATERFLOOD
SHUGART FIELD
EDDY COUNTY, NEW MEXICO



BY WILLIAMSON PETROLEUM CONSULTANTS, INC.

FEASIBILITY STUDY FOR A PROPOSED WATERFLOOD OF CERTAIN PROPERTIES OPERATED BY HANSON OPERATING COMPANY, INC., SIETE OIL AND GAS CORPORATION, AND YATES PETROLEUM CORPORATION IN THE SHUGART FIELD EDDY COUNTY, NEW MEXICO EFFECTIVE MAY 1, 1990 UTILIZING NONESCALATED ECONOMICS PROJECT 9.7098

FEASIBILITY STUDY FOR A PROPOSED WATERFLOOD OF CERTAIN PROPERTIES OPERATED BY HANSON OPERATING COMPANY, INC., SIETE OIL AND GAS CORPORATION, AND YATES PETROLEUM CORPORATION IN THE SHUGART FIELD EDDY COUNTY, NEW MEXICO EFFECTIVE MAY 1, 1990 UTILIZING NONESCALATED ECONOMICS PROJECT 9.7098

PREPARED FOR

HANSON OPERATING COMPANY, INC.

SIETE OIL & GAS CORPORATION

YATES PETROLEUM CORPORATION

JULY 29, 1992

WILLIAMSON PETROLEUM CONSULTANTS, INC.

Williamson Petroleum Consultants, Inc.

HOUSTON

MIDLAND

July 29, 1992

Hanson Operating Company, Inc.
400 North Penn, Suite 1200
Roswell, New Mexico 88201
Attention Mr. Ray Willis

Siete Oil & Gas Corporation
Petroleum Building, Suite 200
Roswell, New Mexico 88202
Attention Mr. Harold Nustice

Yates Petroleum Corporation
105 South 4th Street
Artesia, New Mexico 88210
Attention Mr. David F. Boneau

Gentlemen:

Subject: Feasibility Study for a Proposed Waterflood of
Certain Properties Operated By
Hanson Operating Company, Inc.,
Siete Oil and Gas Corporation, and
Yates Petroleum Corporation
in the Shugart Field
Eddy County, New Mexico
Effective May 1, 1990
Utilizing Nonescalated Economics
Project 9.7098

Williamson Petroleum Consultants, Inc., in conjunction with the engineering subcommittee for the proposed Shugart Waterflood Unit, has performed an engineering evaluation to estimate proved reserves and future net revenue from oil and gas properties to the subject interests. This evaluation was authorized by Mr. Ray Willis of Hanson Operating Company, Mr. Eddie Rodriquez of Siete Oil & Gas Corporation, and Mr. David F. Boneau of Yates Petroleum Corporation. Projections of the reserves and future net revenue to the evaluated interests were based on economic parameters and operating conditions considered applicable as of May 1, 1990. This evaluation includes various economic and/or engineering considerations which are outside the guidelines of the Securities and Exchange Commission (SEC) for disclosing reserves and future net revenue in Form 10-K or other SEC filings. Following is a summary of the results of the evaluation effective May 1, 1990:

310 WEST WALL AVENUE

SUITE 1200

MIDLAND, TEXAS

79701-5121

915 . 685 . 6100

FAX 915 . 685 . 3909

	TOTAL PROVED
Net Reserves to the Evaluated Interests:	
Oil/Condensate, BBL	1,200,346
Other Liquids, BBL	0
Gas, MCF	332,097
Future Net Revenue, $:	
Undiscounted	10,036,070
Discounted Per Annum at 10.00 Percent	4,415,555

The attached Definitions describe all categories of reserves, and the attached report describes the bases of this evaluation.

It has been a pleasure to serve you by preparing this engineering evaluation. All related data will be retained in our files and are available for your review.

Yours very truly,

Williamson Petroleum Consultants, Inc.

WILLIAMSON PETROLEUM CONSULTANTS, INC.

PHD/lab

Attachments

Project 9.7098

hn02

DEFINITIONS OF RESERVES

DEFINITIONS OF OIL AND GAS RESERVES

PROVED RESERVES

Proved reserves are the estimated quantities of crude oil, natural gas, and natural gas liquids which geological and engineering data demonstrate with reasonable certainty to be recoverable in future years from known reservoirs under the economic criteria employed and existing operating conditions. Prices include consideration of changes in existing prices provided by contractual arrangements and escalations based upon an estimate of future conditions.

A. Reservoirs are considered proved if economic producibility is supported by either actual production or conclusive formation test. The area of a reservoir considered proved includes:

1. that portion delineated by drilling and defined by gas-oil and/or oil-water contacts, if any; and

2. the immediately adjoining portions not yet drilled, but which can be reasonably judged as economically productive on the basis of available geological and engineering data. In the absence of information on fluid contacts, the lowest known structural occurrence of hydrocarbons controls the lower proved limit of the reservoir.

B. Reserves which can be produced economically through application of improved recovery techniques (such as fluid injection) are included in the "proved" classification when successful testing by a pilot project, or the operation of an installed program in the reservoir, provides support for the engineering analysis on which the project or program was based.

C. Estimates of proved reserves do not include the following:

1. oil that may become available from known reservoirs but is classified separately as "indicated additional reserves";

2. crude oil, natural gas, and natural gas liquids, the recovery of which is subject to reasonable doubt because of uncertainty as to geology, reservoir characteristics, or economic factors;

3. crude oil, natural gas, and natural gas liquids, that may occur in undrilled prospects; and

4. crude oil, natural gas, and natural gas liquids, that may be recovered from oil shales, coal [1], gilsonite and other such sources.

Proved Developed Reserves [2]

Proved developed reserves are reserves that can be expected to be recovered through existing wells with existing equipment and operating methods. Additional oil and gas expected to be obtained through the application of fluid injection or other improved recovery techniques for supplementing the natural forces and mechanisms of primary recovery should be included as "proved developed reserves" only after testing by a pilot project or after the operation of an installed program has confirmed through production response that increased recovery will be achieved.

Proved Undeveloped Reserves

Proved undeveloped reserves are reserves that are expected to be recovered from new wells on undrilled acreage, or from existing wells where a relatively major expenditure is required for recompletion. Reserves on undrilled acreage shall be limited to those drilling units offsetting productive units that are reasonably certain of production when drilled. Proved reserves for other undrilled units can be claimed only where it can be demonstrated with certainty that there is continuity of production from the existing productive formation. Under no circumstances should estimates for proved undeveloped reserves be attributable to any acreage for which an application of fluid injection or other improved recovery technique is contemplated, unless such techniques have been proved effective by actual tests in the area and in the same reservoir.

UNPROVED RESERVES

Unproved reserves are based on geologic and/or engineering data similar to that used in estimates of proved reserves; but technical, contractual, economic, or regulatory uncertainties preclude such reserves being classified as proved.

Probable Reserves

Probable reserves are estimated quantities of crude oil, natural gas, and natural gas liquids which are indicated by geological and engineering data to exist, but which are subject to an element of uncertainty such that they do not meet the criteria of the proved reserve category.

Possible Reserves

Possible reserves are estimated quantities of crude oil, natural gas, and natural gas liquids which are inferred to exist, but where available geological and engineering data will not support a higher classification.

---

[1] excluding certain coalbed methane gas

[2] Williamson Petroleum Consultants, Inc. separates proved developed reserves into proved developed producing and proved developed nonproducing reserves. This is to identify proved developed producing reserves as those to be recovered from actively producing wells. Proved developed nonproducing reserves as those to be recovered from wells or intervals within wells, which are completed but shut in waiting on equipment or pipeline connections, or wells where a relatively minor expenditure is required for recompletion to another zone.

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DISCUSSION

D I S C U S S I O N

I. INTRODUCTION

This evaluation is submitted by Williamson Petroleum Consultants, Inc. (Williamson) to the three operators of the proposed Shugart Penrose-Middle Grayburg Waterflood Unit which produces from the Shugart (Yates Seven Rivers Queen Grayburg) Pool located in Eddy County, New Mexico. The three principle working interest owners are Hanson Operating Company, Inc. (Hanson), Siete Oil and Gas Corporation (Siete), and Yates Petroleum Corporation (Yates).

The report presents a study of the feasibility of installing a fluid injection project and describes the proposed unit area, its reserves, and associated economics of secondary operations. The study also includes parameters which may be employed to aid in unitization.

II. SUMMARY AND CONCLUSIONS

The Shugart Penrose-Middle Grayburg Unit will encompass 1520 surface acres containing 30 wells which have produced from the Penrose formation of which 22 wells have also produced from the Middle Grayburg formation. The combined remaining primary from all producing reservoirs and secondary reserves from the Penrose and Middle Grayburg formations as of May 1, 1990 were 1,500,430 gross barrels of oil and 415,121 MCF of gas. An economic analysis of the remaining primary and secondary reserves indicates that an undiscounted net revenue before Federal Income Taxes of $10,036,070 will be obtained during the projected 19 years of unitized secondary operations. The investment cost for this project as estimated by Hanson, Siete, and Yates is $1,557,770.

The southeastern part of the unit contains 14 wells that have produced principally from the Seven Rivers formation. It is recommended

that a one well pilot injection project be initiated to test the floodability of the Seven Rivers formation. No secondary reserves from the Seven Rivers were included in the economic analysis.

The Yates, Queen, and Upper Grayburg have been tested in various wells scattered within the proposed unit boundary. The Yates was perforated and fraced in only one well which swabbed only one barrel of fluid per hour at a 95 percent water cut. The Queen was perforated and tested in four wells and the Upper Grayburg in six wells. These tests have yielded only small amounts of free oil. Detailed analysis of the well records establishes that the Yates, Queen, and Upper Grayburg have contributed very little to oil recovery within the unit area. No secondary reserves have been included for these reservoirs.

A structure map of each of the six formations are attached as Figures VI A through VI F.

III. REMARKS

a) Shugart Penrose-Middle Grayburg Unit.

The proposed Shugart Penrose-Middle Grayburg Unit is located six miles south and two miles east of the community of Loco Hills in Eddy County, New Mexico as shown in Figure I. Geologically, the field is a stratigraphic trap associated with localized structural nosing. The unitized interval will include the entire Shugart (Yates Seven Rivers Queen Grayburg) Pool; however, water injection will be limited to the Penrose and Middle Grayburg formations. The Penrose is found at an average depth of 3240 feet and the Middle Grayburg approximately 250 feet deeper at 3490 feet. The proposed unit boundary is shown on Figure II.

The Shugart Pool was discovered on May 6, 1938; however, the first Shugart Pool well within the proposed unit boundary was a re-entry of the Keinath Well No. 1 on April 30, 1961. The first phase of drilling within the unit was completed in 1964 after drilling 12 wells. Drilling was resumed in 1969 through 1973 when 21 wells were completed. Drilling of the remaining wells was scattered from 1974 until the last well was completed in 1989. The proposed unit area contains 25 usable wells in the Penrose-Middle Grayburg Area of which nine wells in the northeast part of the unit will be completed only in the Penrose interval. Figure III and IV show the recommended and alternate injection patterns for the Penrose-Middle Grayburg waterflood and for the Seven Rivers waterflood. Figure III also shows the ultimate primary recovery and the primary producing formations for each well. The nine wells that will be limited to waterflooding only the Penrose can be determined from the identifying producing zones shown on Figure III. A type log that identifies the correlative formation tops is attached as Figure V. The unitized interval will be that correlative interval between 1800 feet and 3500 feet beneath the surface of the ground as found in the Hanson Oil Company - Ginsberg Federal Well No. 13 located 1650 feet FNL and 1800 feet FEL of Section 26, Township 18S, Range 30E in Eddy County, New Mexico. Structure maps based on formation tops of each of the formations in the unitized pool are presented on Figures VI A through VI F.

Cumulative oil production as of May 1, 1990 was 1,564,107 barrels of oil from the proposed Shugart Penrose-Middle Grayburg Unit area. The average production rate as of May 1, 1990 was 2600 barrels of oil per month for an average of 86 barrels of oil per calendar day.

b) Shugart (Seven Rivers) Unit.

The Seven Rivers is the predominant producing formation in the southeast part of the unit. It is isolated such that it could be classified as a separate unit. The Seven Rivers has been included with the Queen and Grayburg in most waterfloods in the immediate area but has not been tested separately for potential secondary response. Figure III shows the primary recovery from the Seven Rivers is substantially less than the Penrose and Middle Grayburg formations. Since the most prolific Seven Rivers wells are located in the western part of the Seven Rivers productive area, it is reasonable to test the floodability of the Seven Rivers by converting the Siete-Ute Federal Well No. 1 to injection and observing response in the three offsetting producing wells. A successful pilot may warrant expansion of the Seven Rivers waterflood to the east. A pressurized water supply could be arranged through a purchase agreement with the Shugart Penrose-Middle Grayburg Unit. Unitization of the Seven Rivers would permit commingling Seven Rivers production into common facilities for fair and equitable distribution to working interest owners based on participation derived from Seven Rivers parameters. A structure map on top of the Seven Rivers pay was prepared and is included as Figure VI B. Since the Seven Rivers is regarded as a pilot waterflood at this time, the remainder of this report will be devoted to the Penrose and Middle Grayburg formations.

IV. PRIMARY PERFORMANCE

The ultimate primary recovery from the proposed Shugart Penrose-Middle Grayburg Unit is 1,777,771 barrels. The primary reserves as of May 1, 1990 were 213,664 barrels indicating the unit area to be 88.0 percent depleted of its primary reserves. These reserves were determined

by extrapolation of the established production decline for each active well using 30 barrels of oil per month as the economic limit. The economics associated with the remaining primary were not calculated since recent improvements in production on certain leases were not representative of field performance. It was also concluded that the currently active wells would be near their economic limit by the time a waterflood would be initiated.

V. SECONDARY RECOVERY OPERATIONS

It was originally anticipated that the Shugart Penrose-Middle Grayburg Unit would be operational by the end of 1990; however, current activity indicates the earliest that injection could commence would be in 1993. Unit area reserves as of that effective date were 1,500,430 barrels of oil which is a summary of the remaining primary reserves plus secondary reserves. Secondary reserves were calculated using a 1:1 secondary to primary ratio in the swept area which is equivalent to a 72.4 percent secondary to primary ratio for the project. This compares favorably with the results obtained from a study of seven nearby mature waterfloods. The projection of production by unitized secondary operations is shown graphically in Figure VII. It is estimated that response will begin one year after injection is commenced. Production is projected to increase during the following two years and then held constant for two years at a rate of 15,000 barrels of oil per month. Secondary production is then expected to decline at 15.0 percent per year to its economic limit of 1,600 barrels of oil per month. This projected production profile is consistent with analogous waterfloods in the immediate vicinity. Unit operations will yield net revenues of $10,036,070 or $4,415,555 discounted at 10.00 percent per annum. Table 4A, 4B, and 4C provide the basic data

and the reserves and economics for the remaining primary plus secondary reserves using a May 1, 1990 effective date.

The 5-spot water injection pattern shown in Figure III is recommended for the Penrose-Middle Grayburg. The alternate pattern presented in Figure IV contains less closed patterns and has a less uniform pattern geometry and size. Examination of offsetting wells indicate the proposed unit to be reasonably isolated from other Penrose-Middle Grayburg completions that have significant cumulative production. Other offsetting wells have ceased to produce. Based on this examination, it is doubtful that lease line agreements will be required to prevent significant migration of secondary reserves from the proposed unit area. Well data sheets have been provided each operator that summarize all information contained in each well file including detailed test information obtained during completion and correlated formation tops. Stick diagram cross sections were constructed and given to each operator to identify the correlative pay zones and to insure each floodable zone is perforated in both the producing and injection wells.

The investment cost for the water injection facilities and system are estimated to be $1,131,400. The initial producing well workover cost were scheduled over a three year period at a total cost of $426,370. Although the plant is designed to also furnish injection water for the Seven Rivers pilot, the remainder of the cost to implement and expand the pilot was deleted in the above cost estimate. The plant is designed to inject 300 barrels of water per day initially into 14 wells and can be expanded to 17 wells if the Seven Rivers pilot is successful. It is

anticipated that make-up water will be supplied from the City of Carlsbad Eagle Water System.

VI. PARAMETERS

The Engineering Subcommittee tabulated as Table 1 parameters by waterflood zone by operator and a total of both zones by operator as follows:

1.) Current Oil Production, July through December 1989

2.) Current Gas Production, July through December 1989

3.) Oil Cumulative, July 1, 1989

4.) Gas Cumulative, July 1, 1989

5.) Primary Oil Reserves, July 1, 1989

6.) Primary Gas Reserves, July 1, 1989

7.) Primary Oil Ultimate

8.) Primary Gas Ultimate

9.) Secondary Oil Ultimate

10.) Producing Wells, January 1, 1990

11.) Useable Wells, January 1, 1990

12.) Productive Acreage

Table 2 lists each of the above parameters as a percent of the unit total. Tables 3A through 3H reflect the percentages, by operator, of each parameter shown in Table 2, weighted in convenient increments from 100 percent to five percent as an aid in calculating each operators overall participation under any formula proposed by the working interest owners for adaption.

VII. RECOMMENDATIONS

The Engineering Subcommittee has recommended the following:

1.) That the Shugart Unit be formed as shown in Figure II for the purposes of waterflooding the Penrose and Middle Grayburg formations.

2.) That a five-spot injection pattern be utilized for the Penrose and Middle Grayburg formations but that injection be limited to the Penrose formation in the five northeast injection wells as indicated in Figure III.

3.) That injection be limited to those zones in the Penrose and Middle Grayburg formation that are shown in the stick diagrams (not included in this report) to be correlative and continuous pay zones.

4.) That a second but integral Shugart Unit be formed as a pilot waterflood to test the floodability of the Seven Rivers formation to include the SW/4 Section 30, T18S, R31E and the SE/4 and the E/4 of the SW/4 Section 25, T18S, R30E.

5.) That Ute-Federal Well No. 1 be converted to injection such that Seven Rivers waterflood response can be tested from three directions.

6.) Separate production facilities be maintained for the Seven Rivers area.

7.) That the participation formula be negotiated for division of production from the Seven Rivers area.

VIII. GENERAL EVALUATION COMMENTS BY WILLIAMSON

The attached individual projection of unit reserves and economics (Tables 4A, 4B, and 4C) include data that describe the production forecasts and associated evaluation parameters such as interests, taxes, product prices, operating costs, and investments.

Net income to the evaluated interests is the future net revenue after consideration of royalty revenue payable to others, taxes, operating expenses, and investments, as applicable. The future net revenue is before federal income tax and excludes consideration of any encumbrances against the properties if such exist.

The future net revenue values presented in this report were based on projections of oil and gas production. It was assumed there would be no significant delay between the date of oil and gas production and the receipt of the associated revenue for this production.

The future net revenue was discounted at an annual rate of 10.00 percent as requested by Hanson, Siete, and Yates. Future net revenue was also discounted at secondary rates of 8.00, 12.00, 15.00, 18.00, and 20.00 and percent per annum. These additional discounted amounts are displayed as totals only. The future net revenue was discounted at the midpoint of the period, compounded annually. Capital costs were discounted at the time they occurred and were compounded annually.

This report includes only those costs and revenues which are considered by Hanson, Siete, and Yates to be directly attributable to individual leases and areas. There could exist other revenues, overhead costs, or other costs associated with Hanson, Siete, or Yates which are not included in this report. Such additional costs and revenues are outside the scope of this report. This report is not a financial statement for Hanson, Siete, or Yates and should not be used as the sole basis for any transaction concerning Hanson, Siete, or Yates or the evaluated properties.

The reserves projections in this evaluation are based on the use of the available data and accepted industry engineering methods. Future changes in any operational or economic parameters or production characteristics of the evaluated properties could increase or decrease their reserves. Unforeseen changes in market demand or allowables set by various regulatory agencies could also cause actual production rates to vary from those projected. The date of first response from waterflooding was based on estimates by Hanson, Siete, and Yates or Williamson and the actual dates may vary from those estimated. Williamson reserves the right to alter any of the reserves projections and the associated economics included in this evaluation in any future evaluations based on additional data that may be acquired.

Williamson is an independent consulting firm and does not own any interests in the oil and gas properties covered by this report. No employee, officer, or director of Williamson is an employee, officer, or director of Hanson, Siete, or Yates. Neither the employment of nor the compensation received by Williamson is contingent upon the values assigned to the properties covered by this report.

Oil and gas reserves were evaluated for the proved developed producing and proved undeveloped categories. In preparing this evaluation, no attempt has been made to quantify the element of uncertainty associated with any category. The attached Definitions describe all categories of reserves (Figure VIII).

Oil reserves are expressed in United States (U.S.) barrels of 42 U.S. gallons. Gas volumes are expressed in thousands of cubic feet (MCF)

at 60 degrees Fahrenheit and at the legal pressure base that prevails in the state in which the reserves are located. No adjustment of the individual gas volumes to a common pressure base has been made.

All data utilized in the preparation of this report with respect to interests, reversionary status, oil and gas prices, gas categories, gas contract terms, operating expenses, investments, well information, and current operating conditions, as applicable, were provided by the operators. All data have been reviewed for reasonableness and, unless obvious errors were detected, have been accepted as correct. It should be emphasized that revisions to the projections of reserves and economics included in this report may be required if the provided data are revised for any reason. No inspection of the properties was made as this was not considered within the scope of this evaluation.

Hanson, Siete, and Yates represented to Williamson that they have, or can generate, the financial and operational capabilities to accomplish the evaluated project.

Unless specifically identified and documented by Hanson, Siete, and Yates as having curtailment problems, gas production trends have been assumed to be a function of well productivity and not of market conditions. The effect of "take or pay" clauses in gas contracts was not considered.

The estimates of reserves contained in this report were determined by accepted industry methods and in accordance with the attached Definitions of Oil and Gas Reserves. Methods utilized in this report

include extrapolation of historical production trends and analogy to similar properties.

Where sufficient production history and other data were available, reserves for producing properties were determined by extrapolation of historical production trends. Analogy to similar properties was used for assignment of secondary reserves. Reserves projections based on analogy are subject to change due to subsequent changes in the analogous properties or subsequent production from the evaluated properties.

A three-character reserves grading code was assigned to each lease in this report. It is displayed on the List of Properties (Table 4A). It also appears on the lease reserves and economics pages (Table 4B and 4C). This code indicates a new property or the relative value of the property when previously evaluated, the type of engineering analysis used, and the quality factor associated with the reserves projection. A legend explaining this code appears on the List of Properties. The quality factor is a subjective measurement of the overall confidence in the projection of reserves based on such factors as availability of data, engineering methodology used, and experience with similar wells.

An oil price of $16.48 per barrel was provided by Hanson, Siete, and Yates to be used at the effective date. After the effective date, prices were held constant for the life of the properties. No attempt has been made to account for oil price fluctuations which have occurred in the market subsequent to the effective date of this report.

A gas price of $1.31 per MCF was provided Hanson, Siete, and Yates by to be used at the effective date. After the effective date, prices were held constant for the life of the properties.

It should be emphasized that with the current economic uncertainties, fluctuation in market conditions could significantly change the economics in this report.

Operating expenses were provided by Hanson, Siete, and Yates and were based on the latest available 12-month average of all recurring expenses which are billable to the working interest owners. These expenses included, but were not limited to, all direct operating expenses and field overhead costs. Any internal indirect overhead cost (general and administrative) which are not billable to the working interest owners were not included. Expenses for workovers, well stimulations, and other maintenance were not included in the operating expenses unless such work was expected on a recurring basis. The expense of the initial workover on each producing and injection well was considered as an investment cost. Judgements for the exclusion of the nonrecurring expenses were made by Hanson, Siete, and Yates. Secondary operating cost for producing wells were projected to be $1500 per well per month or approximately twice that of producing wells during primary operations. Injection well cost were assessed to be $800/well/month. The economic limit for calculating the remaining primary reserves for each property was determined using 30 barrels of oil/well/month. Operating costs were held constant for the life of the properties.

State production taxes have been deducted at the published rates as appropriate. Average county ad valorem taxes were also deducted.

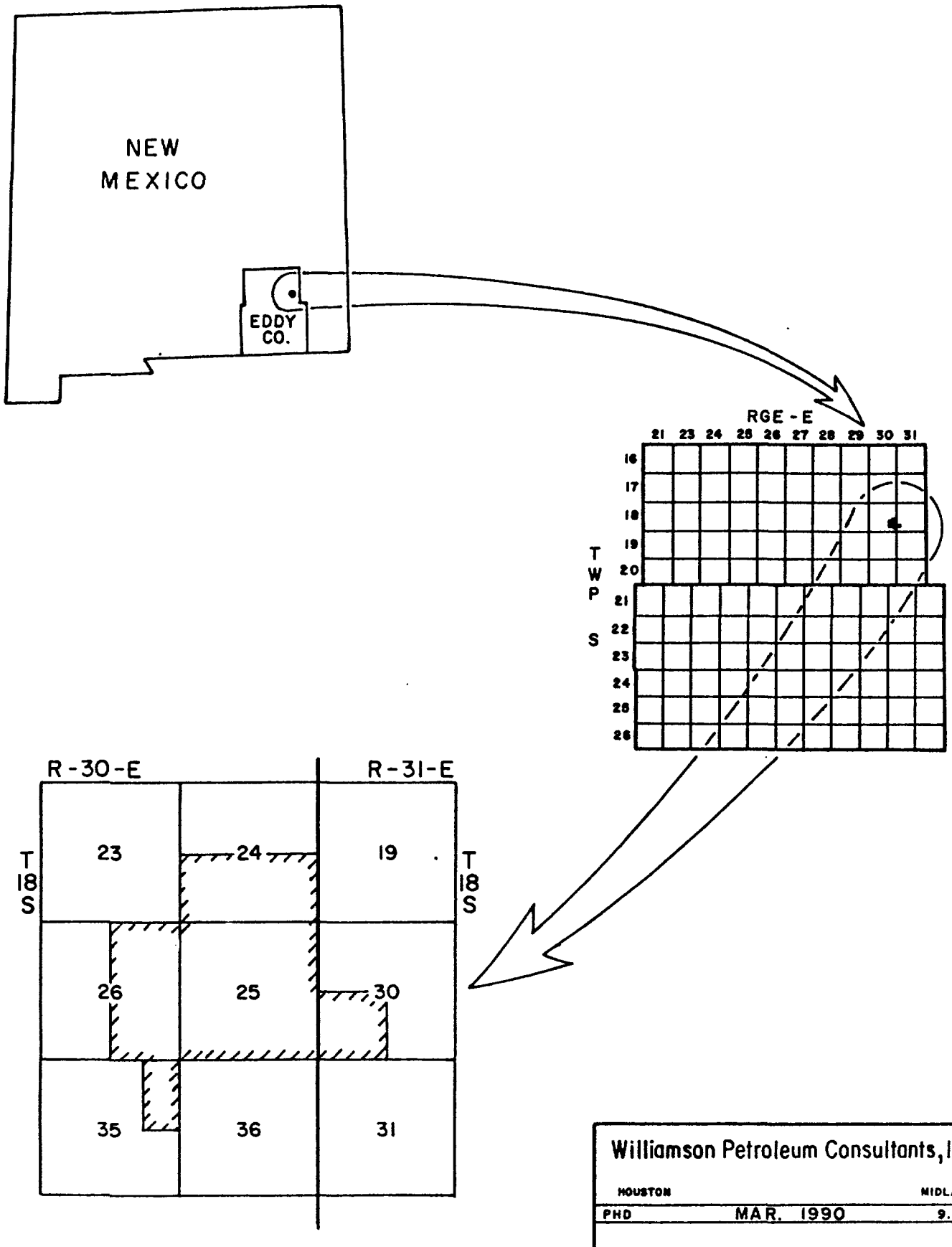
All capital costs for drilling and completion of wells, and nonrecurring workover costs have been deducted as applicable. These costs were provided by Hanson, Siete, and Yates. No adjustments were made to account for the potential effect of inflation on these costs.

Neither salvage values nor abandonment costs were provided by Hanson, Siete, and Yates to be included in this evaluation.

Project 9.7098

hn02

FIGURES



Williamson Petroleum Consultants, Inc.

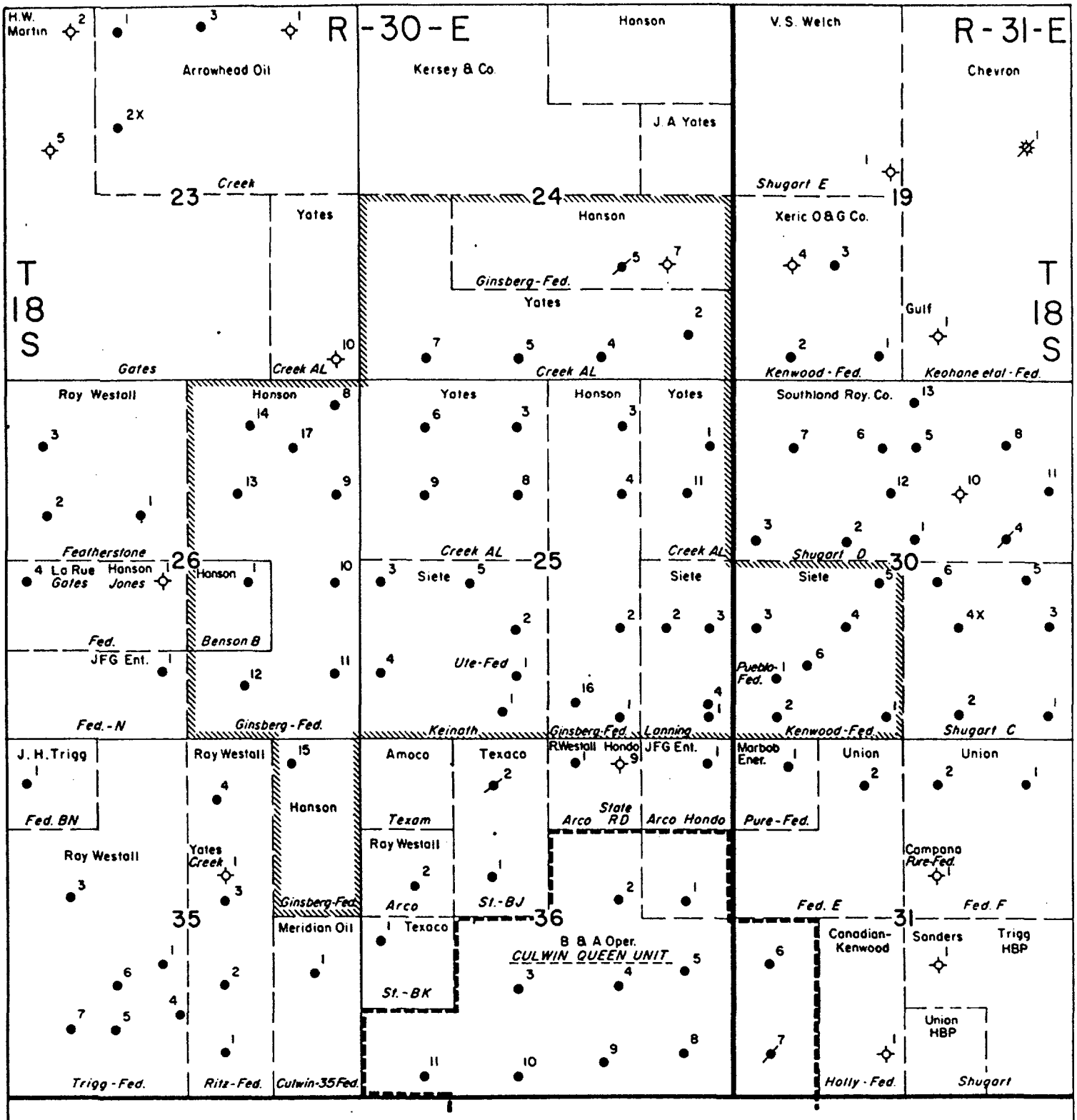
HOUSTON — MIDLAND

PHD — MAR. 1990 — 9.7098

UNIT LOCATION PLAT

HANSON-SIETE-YATES
PROPOSED WATERFLOOD UNIT
SHUGART FIELD
EDDY COUNTY, NEW MEXICO

FIGURE I



PROPOSED WATERFLOOD UNIT BOUNDARY

0 1/4 1/2 1 MILE
SCALE

Williamson Petroleum Consultants, Inc.

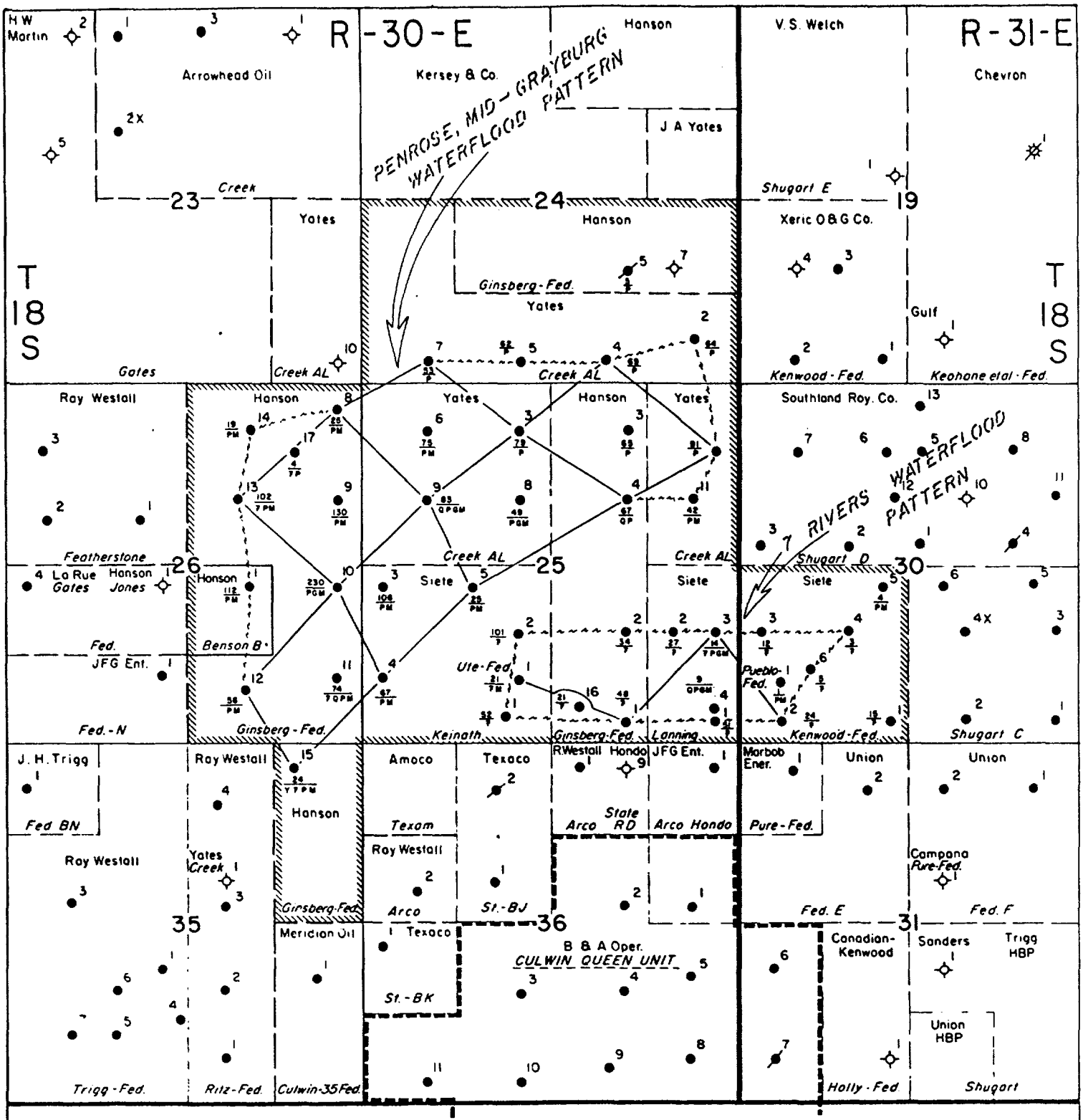
HOUSTON MIDLAND

PHD MAR 1990 9 7098

UNIT AREA PLAT

HANSON-SIETE-YATES
PROPOSED WATERFLOOD UNIT
SHUGART FIELD
EDDY COUNTY, NEW MEXICO

FIGURE II



PROPOSED WATERFLOOD UNIT BOUNDARY

Ult, M Bbls
Prod. Zones

Y - YATES
7 - 7 RIVERS
Q - QUEEN
P - PENROSE
G - GRAYBURG
M - MID-GRAYBURG

PENROSE, MID-GRAYBURG 12 Producing Wells
13 Injection Wells

SEVEN RIVERS 9 Producing Wells
4 Injection Wells

NOTE Operator's committee assigned Ultimate of Ute-Fed Well No 1 Equivalent to the Ultimate of Ginsberg-Fed Well No 16

0 1/4 1/2 1 MILE
SCALE

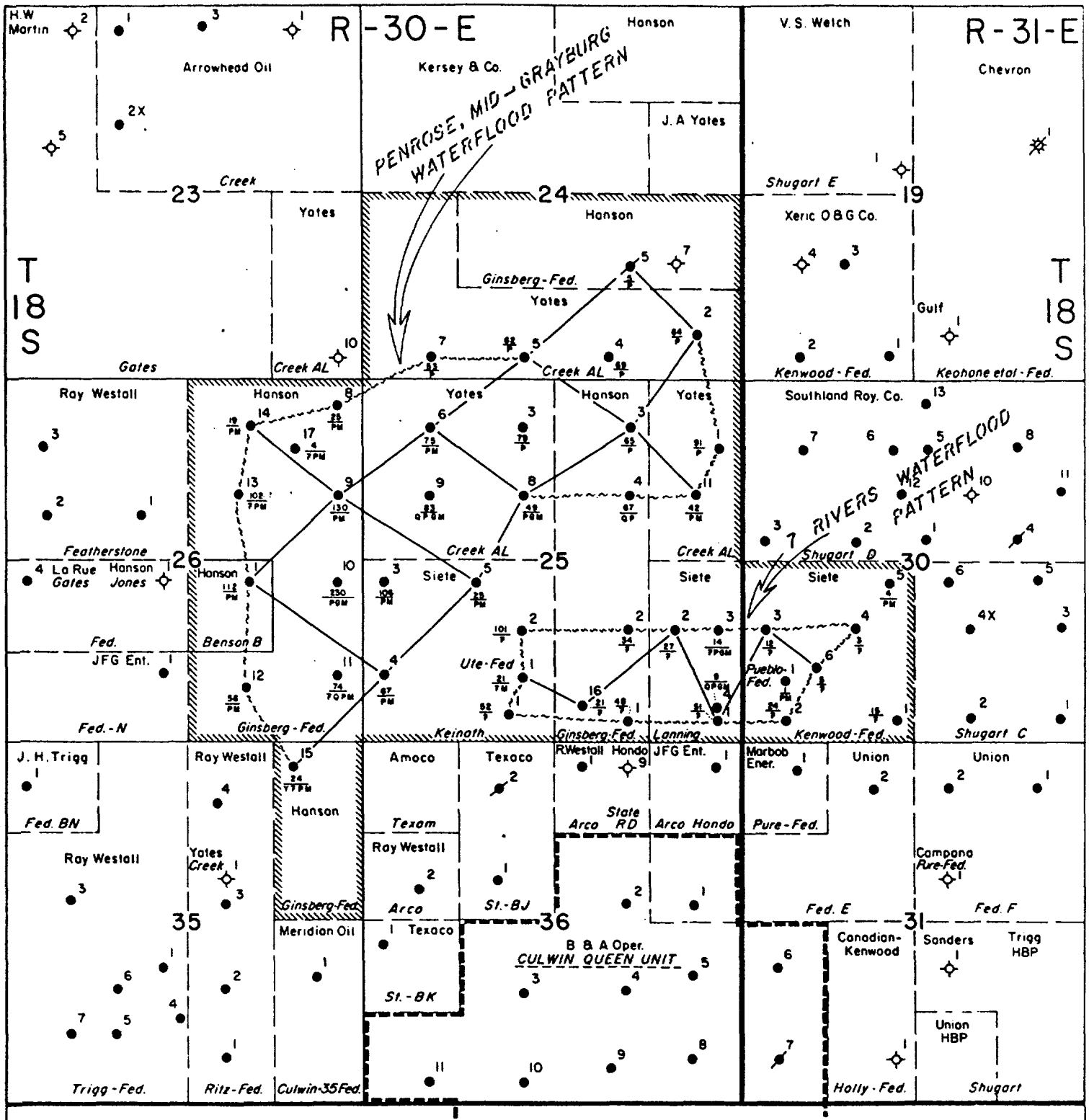
Williamson Petroleum Consultants, Inc.

HOUSTON MIDLAND

PHD MAR. 1990 9 7098

INJECTION PATTERN
PENROSE, MID-GRAYBURG SEVEN RIVERS HANSON-SIETE-YATES PROPOSED WATERFLOOD UNIT
SHUGART FIELD
EDDY COUNTY, NEW MEXICO

FIGURE III



PROPOSED WATERFLOOD UNIT BOUNDARY

Ult, M Bbls / Prod. Zones

Y - YATES
7 - 7 RIVERS
Q - QUEEN
P - PENROSE
G - GRAYBURG
M - MID-GRAYBURG

PENROSE, MID-GRAYBURG: 13 Producing Wells, 13 Injection Wells

SEVEN RIVERS: 7 Producing Wells, 6 Injection Wells

NOTE: Operator's committee assigned Ultimate of Ute-Fed Well No. 1 Equivalent to the Ultimate of Ginsberg-Fed. Well No. 16

SCALE: 0 1/4 1/2 1 MILE

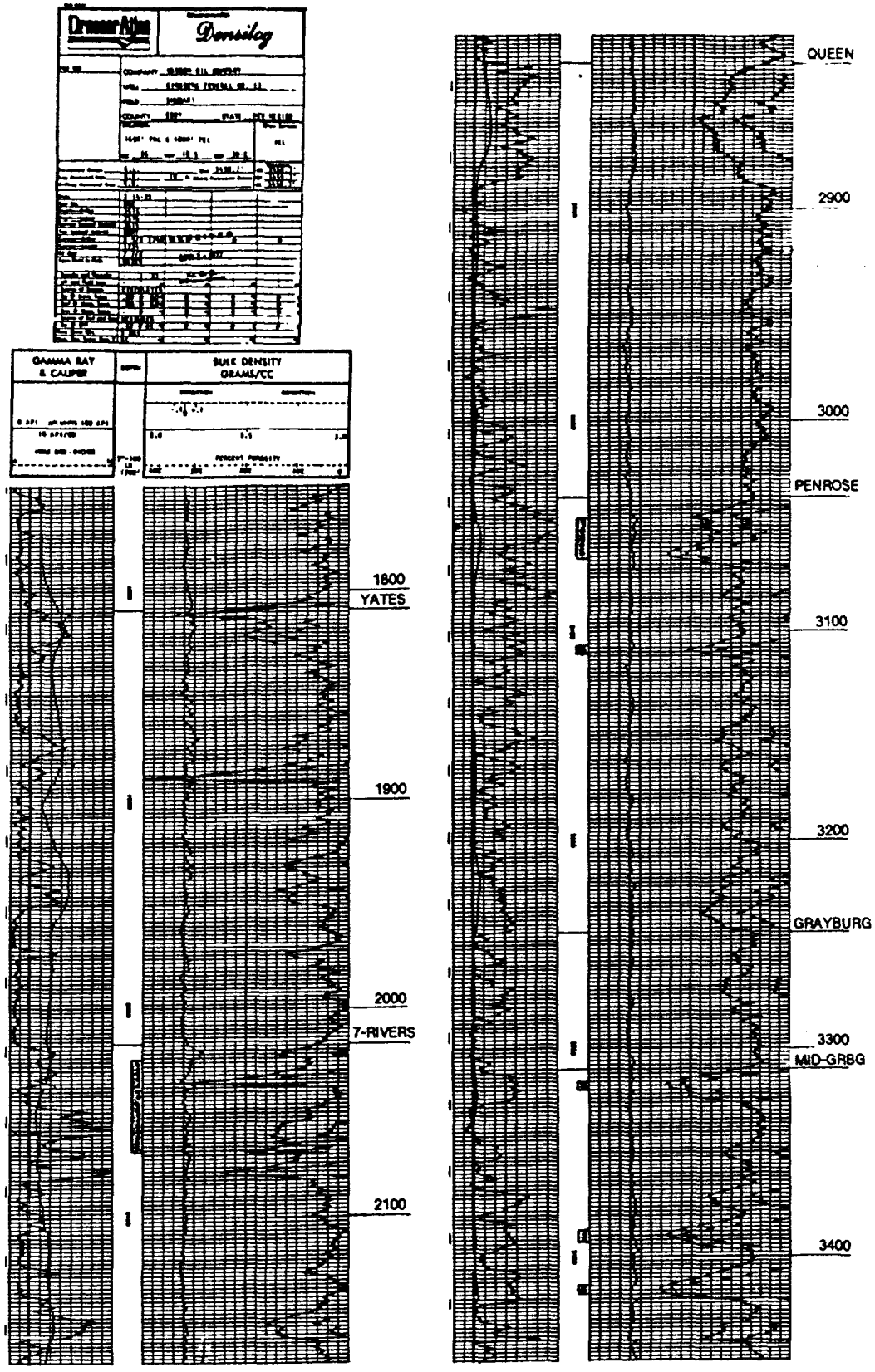
Williamson Petroleum Consultants, Inc.

HOUSTON MIDLAND

PHD MAR 1990 9 7098

ALTERNATE INJECTION PATTERN
PENROSE, MID-GRAYBURG SEVEN RIVERS HANSON-SIETE-YATES PROPOSED WATERFLOOD UNIT
SHUGART FIELD
EDDY COUNTY, NEW MEXICO

FIGURE IV



Williamson Petroleum Consultants, Inc.

HOUSTON MIDLAND

PHD MAR. 1990 9.7098

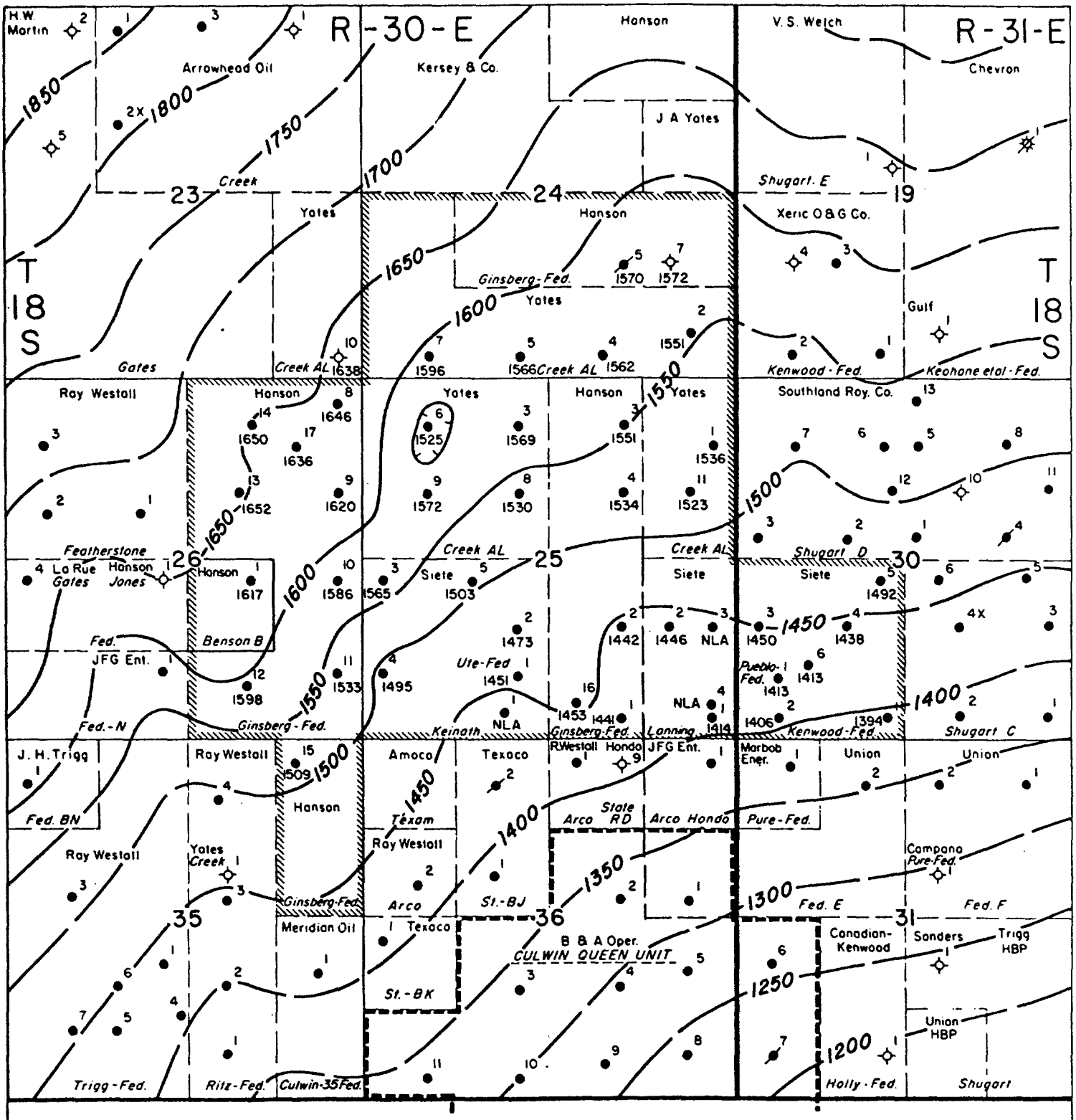
TYPE LOG

HANSON-SIETE-YATES PROPOSED WATERFLOOD UNIT

SHUGART FIELD

EDDY COUNTY, NEW MEXICO

FIGURE V



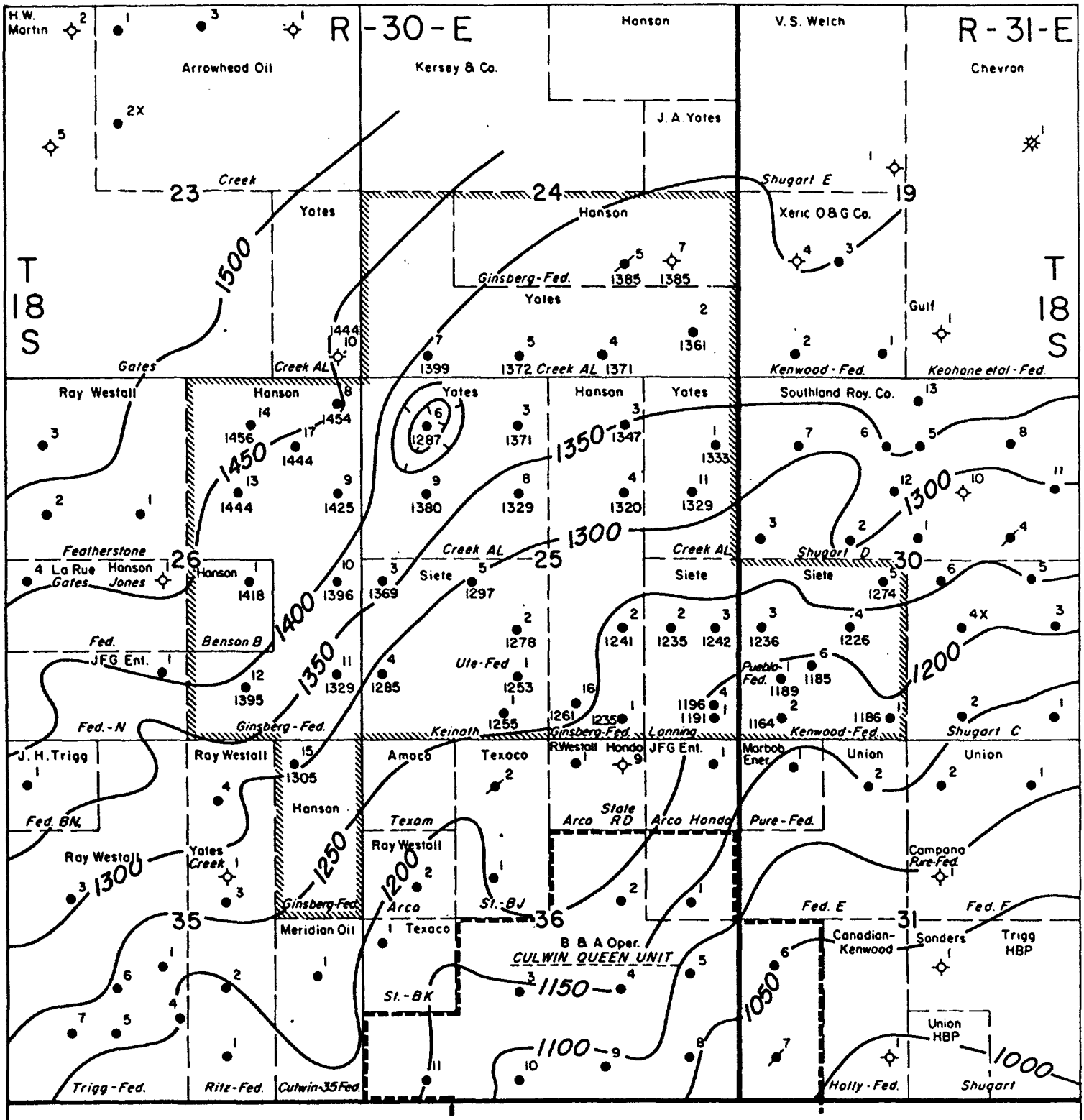
PROPOSED WATERFLOOD UNIT BOUNDARY

0 1/4 1/2 1 MILE
SCALE

Williamson Petroleum Consultants, Inc.
HOUSTON MIDLAND
PHD MAR 1990 9 7098

STRUCTURE
YATES
C.I. = 50'
HANSON-SIETE-YATES
PROPOSED WATERFLOOD UNIT
SHUGART FIELD
EDDY COUNTY, NEW MEXICO

FIGURE VI-A



Williamson Petroleum Consultants, Inc.

HOUSTON — MIDLAND

PHD — MAR 1990 — 9.7098

STRUCTURE

7-RIVERS

C.I. = 50'

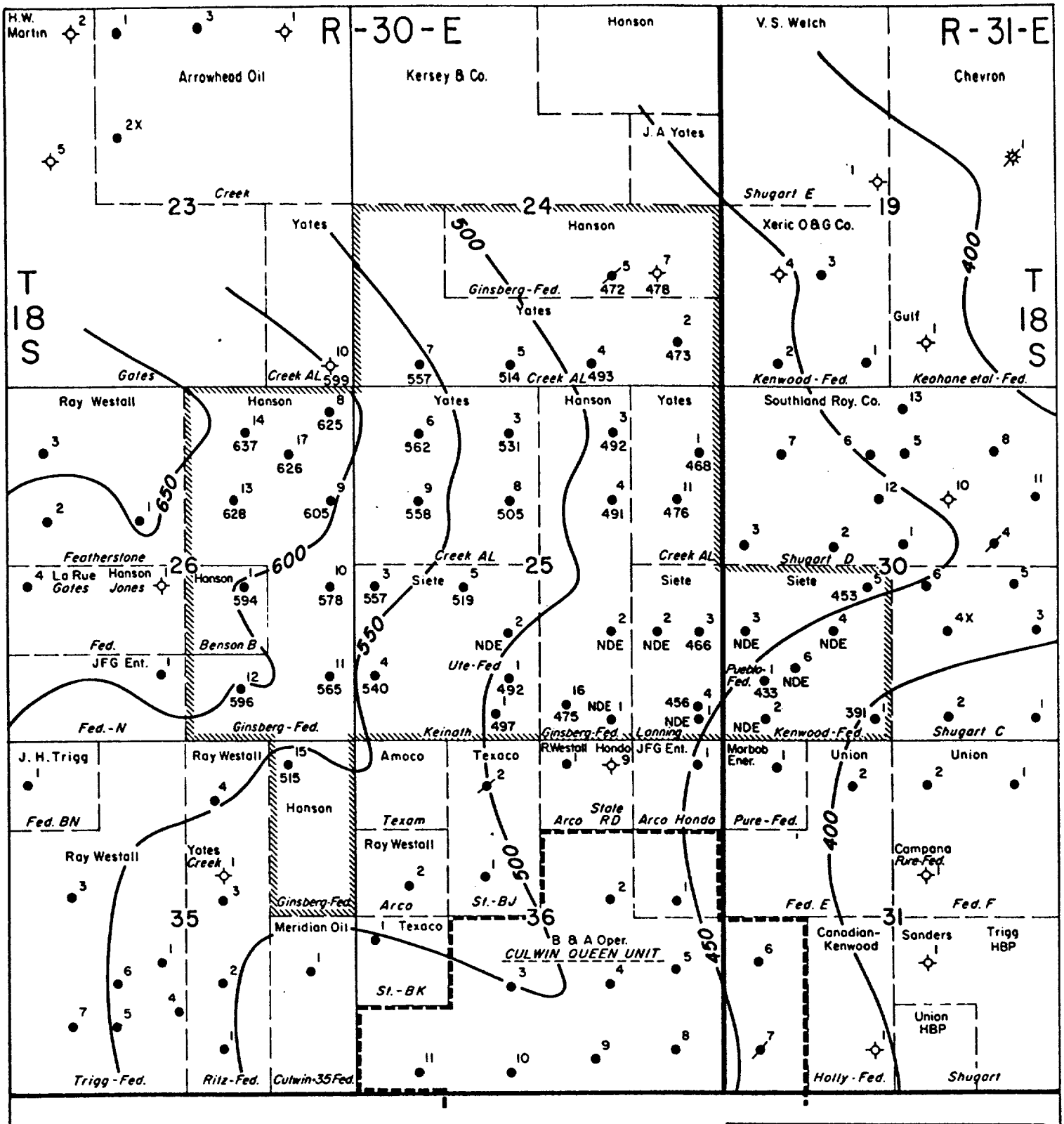
HANSON-SIETE-YATES

PROPOSED WATERFLOOD UNIT

SHUGART FIELD

EDDY COUNTY, NEW MEXICO

FIGURE VI B



PROPOSED WATERFLOOD UNIT BOUNDARY

0 1/4 1/2 1 MILE
SCALE

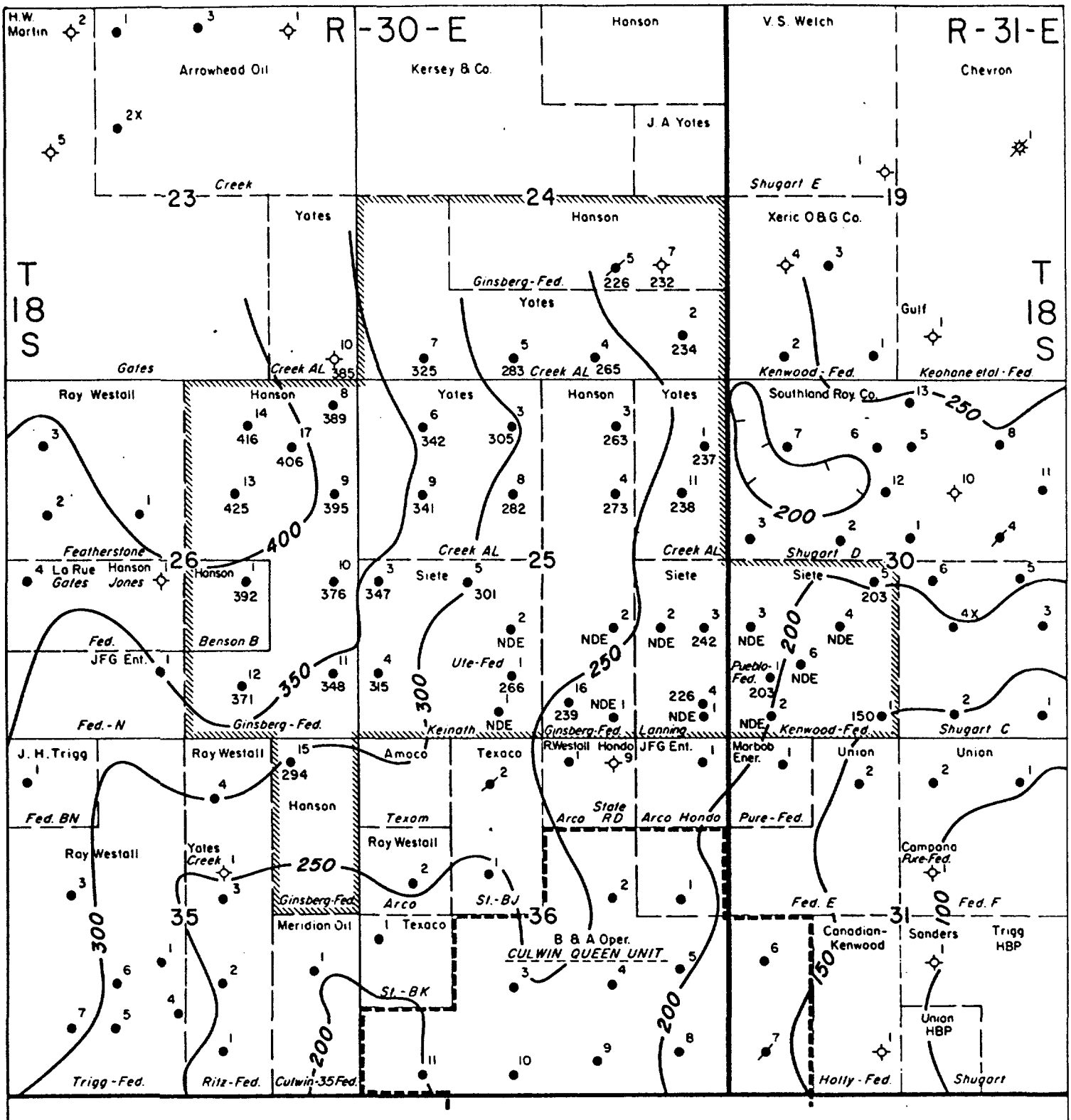
Williamson Petroleum Consultants, Inc.

HOUSTON MIDLAND

PHD MAR 1990 9.7098

STRUCTURE
QUEEN
C.I. = 50'
HANSON-SIETE-YATES
PROPOSED WATERFLOOD UNIT
SHUGART FIELD
EDDY COUNTY, NEW MEXICO

FIGURE VI C



Williamson Petroleum Consultants, Inc.

HOUSTON — MIDLAND

PHD — MAR 1990 — 9 7098

STRUCTURE

PENROSE

C.I. = 50'

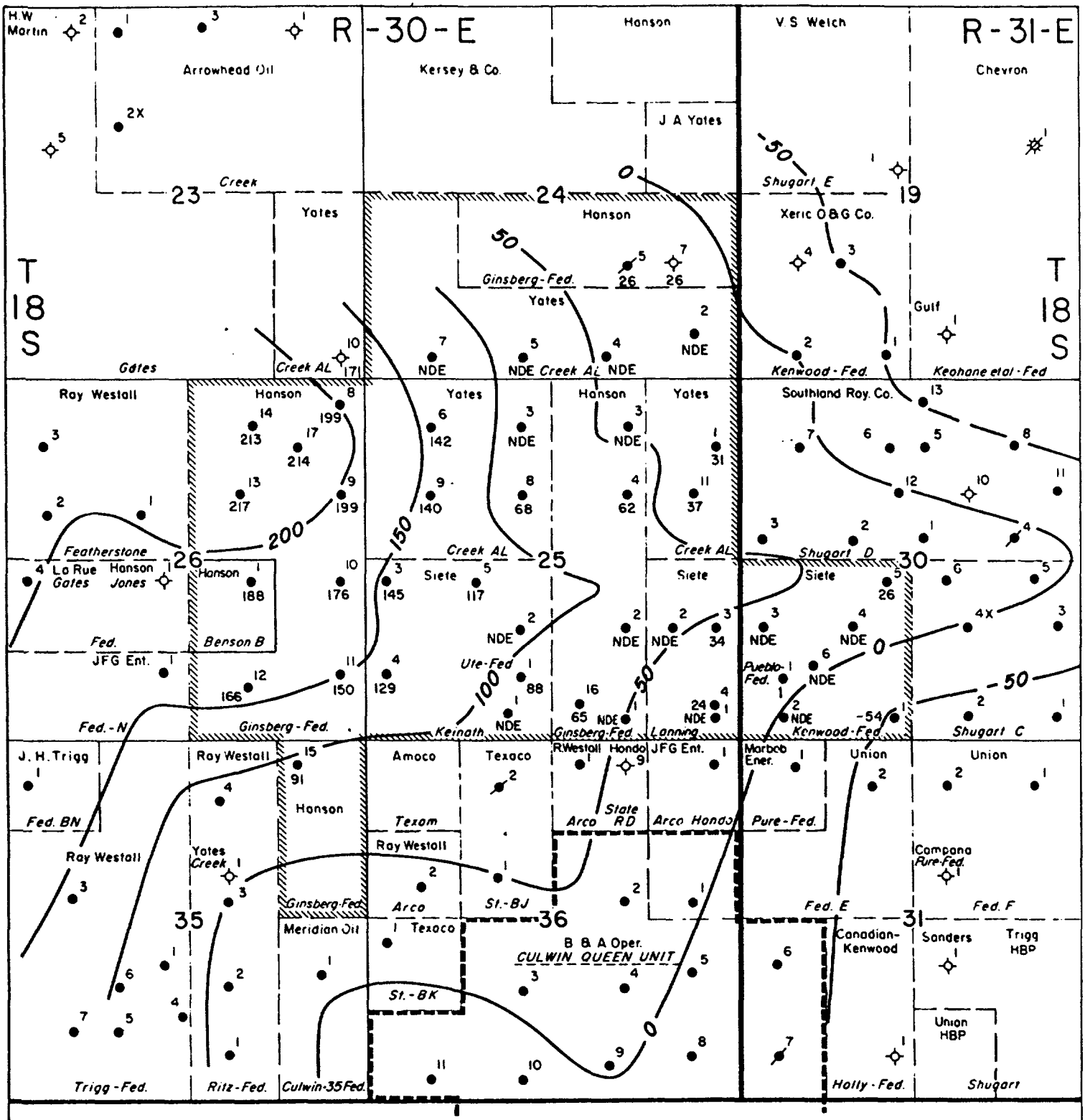
HANSON - SIETE - YATES

PROPOSED WATERFLOOD UNIT

SHUGART FIELD

EDDY COUNTY, NEW MEXICO

FIGURE VI D



PROPOSED WATERFLOOD UNIT BOUNDARY

0 1/4 1/2 1 MILE
SCALE

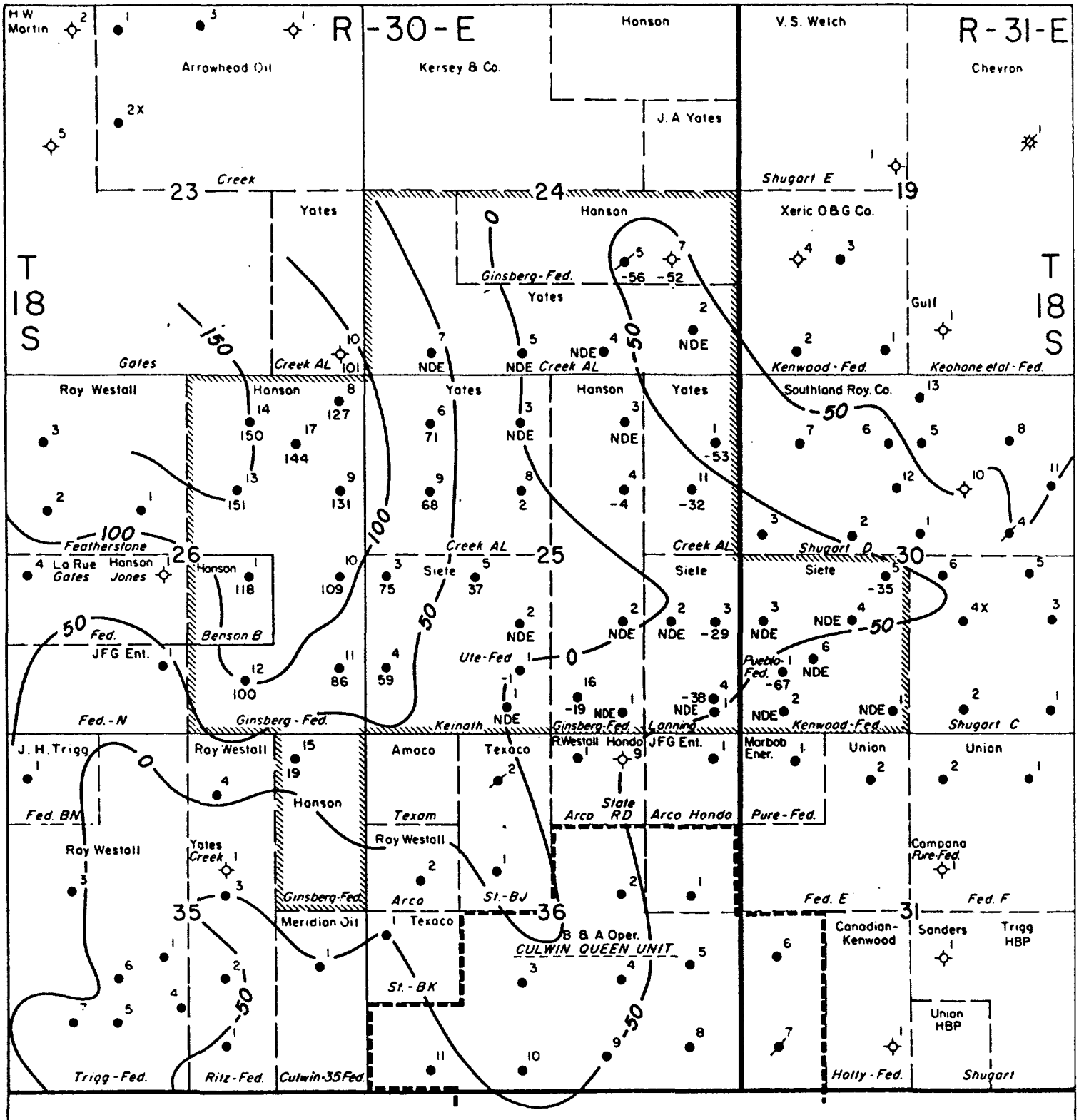
Williamson Petroleum Consultants, Inc.

HOUSTON MIDLAND

PHD MAR 1990 9 7098

STRUCTURE
UPPER GRAYBURG
C.I. = 50'
HANSON-SIETE-YATES
PROPOSED WATERFLOOD UNIT
SHUGART FIELD
EDDY COUNTY, NEW MEXICO

FIGURE VI E



Williamson Petroleum Consultants, Inc.

HOUSTON — MIDLAND

PHD — MAR 1990 — 9.7098

STRUCTURE

MID-GRAYBURG

C. I. = 50'

HANSON-SIETE-YATES

PROPOSED WATERFLOOD UNIT

SHUGART FIELD

EDDY COUNTY, NEW MEXICO

FIGURE VI F

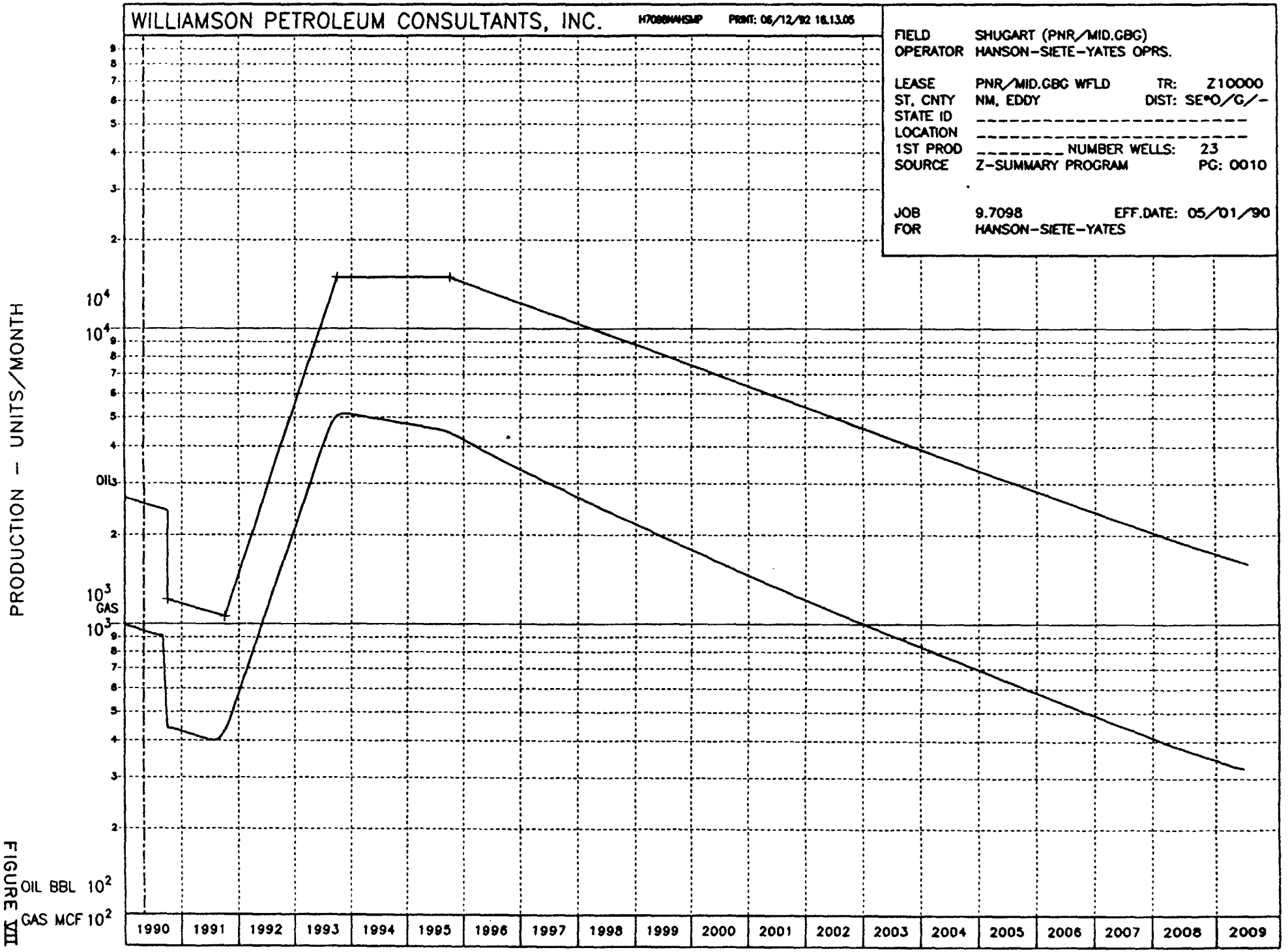

WILLIAMSON PETROLEUM CONSULTANTS, INC.
PRINT: 05/12/92 16.13.05
FIELD SHUGART (PNR/MID.GBG)
OPERATOR HANSON-SIETE-YATES OPRS.
LEASE PNR/MID.GBG WFLD TR: Z10000
ST, CNTY NM, EDDY DIST: SE*O/G/-
STATE ID
LOCATION
1ST PROD NUMBER WELLS: 23
SOURCE Z-SUMMARY PROGRAM PG: 0010
JOB 9.7098 EFF.DATE: 05/01/90
FOR HANSON-SIETE-YATES
PRODUCTION - UNITS/MONTH
OIL BBL 10^2
GAS MCF 10^2
1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009

FIGURE VII

TABLES

JOB 9.7098
05/25/90

HANSON-SIETE-YATES PROPOSED WATERFLOOD UNIT
SHUGART FIELD, EDDY COUNTY, NEW MEXICO
PARTICIPATION PARAMETERS LISTED BY WFLD ZONE, OPERATOR

PARAM-7098.WKS
TBL-1-7098.PRN
TABLE 1

OPERATOR LEASE NAME	WFLD ZONE	CURRENT OIL PROD 7-12/89	CURRENT GAS PROD 7-12/89	OIL CUM 07/01/89	GAS CUM 07/01/89	PRIMARY OIL RES 07/01/89	PRIMARY GAS RES 07/01/89	PRIMARY OIL ULT	PRIMARY GAS ULT	SECONDARY OIL ULT	PRODUCING WELLS 01/01/90	USEABLE WELLS 01/01/90	PRODUCTIVE ACREAGE
HANSON OP. CO.													
BENSON, L.B. #1	PNR/GBG M	1,865	2,421	94,129	204,280	18,280	20,107	112,409	224,387	56,205	1	1	40
GINSBERG #3-15,17	PNR/GBG M	9,355	3,834	651,182	823,373	147,793	71,013	798,975	894,386	641,379	11	11	440
TOTAL		11,220	6,256	745,311	1,027,653	166,073	91,120	911,384	1,118,773	697,583	12	12	480
SIETE O&G CORP.													
KEINATH #3-#5	PNR/GBG M	3,103	242	173,836	161,932	27,310	2,240	201,146	164,172	153,324	3	3	100
TOTAL		3,103	242	173,836	161,932	27,310	2,240	201,146	164,172	153,324	3	3	100
YATES PET. CORP.													
CREEK AL #1-#11	PNR/GBG M	3,370	0	618,958	563,954	46,283	0	665,241	563,954	435,859	5	10	400
TOTAL		3,370	0	618,958	563,954	46,283	0	665,241	563,954	435,859	5	10	400
ZONE TOTAL	PNR/GBG M	17,693	6,497	1,538,105	1,753,539	239,686	93,360	1,777,771	1,846,899	1,286,766	20	25	980
HANSON OP. CO.													
GINSBERG #1,2,16	7 RVRS	1,544	1,701	81,049	61,244	22,041	25,222	103,090	86,466	48,962	3	3	80
TOTAL		1,544	1,701	81,049	61,244	22,041	25,222	103,090	86,466	48,962	3	3	80
SIETE O&G CORP.													
KEINATH #1,#2	7 RVRS	347	0	153,370	64,403	12	0	153,382	64,403	38,346	2	2	60
KENWOOD #1-#6	7 RVRS	338	0	60,990	31,837	2,295	0	63,285	31,837	18,351	4	6	160
LANNING #1-#4	7 RVRS	483	0	100,855	45,809	42	0	100,897	45,809	55,095	4	4	80
PUEBLO FED #1	7 RVRS	417	0	975	0	155	0	1,130	0	1,130	1	1	0
UTE FED #1	7 RVRS	0	0	0	0	20,633	0	20,633	0	10,332	0	1	0
TOTAL		1,585	0	316,190	142,049	23,137	0	339,327	142,049	123,253	11	14	300
ZONE TOTAL	7 RVRS	3,129	1,701	397,239	203,293	45,178	25,222	442,417	228,515	172,215	14	17	380
HANSON OP. CO.													
BENSON, L.B. #1	PNR/GBG M	1,865	2,421	94,129	204,280	18,280	20,107	112,409	224,387	56,205	1	1	40
GINSBERG #1,2,16	7 RVRS	1,544	1,701	81,049	61,244	22,041	25,222	103,090	86,466	48,962	3	3	80
GINSBERG #3-15,17	PNR/GBG M	9,355	3,834	651,182	823,373	147,793	71,013	798,975	894,386	641,379	11	11	440
TOTAL		12,764	7,956	826,360	1,088,897	188,114	116,342	1,014,474	1,205,239	746,545	15	15	560
SIETE O&G CORP.													
KEINATH #1,#2	7 RVRS	347	0	153,370	64,403	12	0	153,382	64,403	38,346	2	2	60
KEINATH #3-#5	PNR/GBG M	3,103	242	173,836	161,932	27,310	2,240	201,146	164,172	153,324	3	3	100
KENWOOD #1-#6	7 RVRS	338	0	60,990	31,837	2,295	0	63,285	31,837	18,351	4	6	160
LANNING #1-#4	7 RVRS	483	0	100,855	45,809	42	0	100,897	45,809	55,095	4	4	80
PUEBLO FED #1	7 RVRS	417	0	975	0	155	0	1,130	0	1,130	1	1	0
UTE FED #1	7 RVRS	0	0	0	0	20,633	0	20,633	0	10,332	0	1	0
TOTAL		4,688	242	490,026	303,981	50,447	2,240	540,473	306,221	276,577	14	17	400
YATES PET. CORP.													
CREEK AL #1-#11	PNR/GBG M	3,370	0	618,958	563,954	46,283	0	665,241	563,954	435,859	5	10	400
TOTAL		3,370	0	618,958	563,954	46,283	0	665,241	563,954	435,859	5	10	400
GRAND TOTAL	BOTH ZONES	20,822	8,198	1,935,344	1,958,832	284,844	118,582	2,220,188	2,075,414	1,458,981	34	42	1,360

TABLE 1

WILLIAMSON PETROLEUM CONSULTANTS, INC.
MIDLAND, TEXAS
PAUL H. DAVIS/GLL

NOTE: ALL OIL VOLUMES ARE EXPRESSED IN BARRELS.
ALL GAS VOLUMES ARE EXPRESSED IN MCF.

HANSON-SIETE-YATES PROPOSED WATERFLOOD UNIT
SHUGART FIELD, EDDY COUNTY, NEW MEXICO
PARTICIPATION PARAMETERS LISTED BY WFLD ZONE, OPERATOR
PERCENT OF UNIT TOTAL

OPERATOR LEASE NAME	WFLD ZONE	CURRENT OIL PROD 7-12/89 (PERCENT)	CURRENT GAS PROD 7-12/89 (PERCENT)	OIL CUM 07/01/89 (PERCENT)	GAS CUM 07/01/89 (PERCENT)	PRIMARY OIL RES 07/01/89 (PERCENT)	PRIMARY GAS RES 07/01/89 (PERCENT)	PRIMARY OIL ULT (PERCENT)	PRIMARY GAS ULT (PERCENT)	SECONDARY OIL ULT (PERCENT)	PRODUCING WELLS 01/01/90 (PERCENT)	USEABLE WELLS 01/01/90 (PERCENT)	PRODUCTIVE ACREAGE (PERCENT)
HANSON OP. CO.													
BENSON, L.B. #1	PNR/GBG M	10.54089	37.26335	6.11980	11.84958	7.62728	21.53706	6.32303	12.14939	4.36789	5.00000	4.00000	4.08163
GINSBERG #3-15,17	PNR/GBG M	52.87402	59.01185	42.33684	46.95494	61.66824	76.06363	44.94251	48.42637	49.84422	55.00000	44.00000	44.89796
TOTAL		63.41491	96.27520	48.45644	58.80452	69.29352	97.60069	51.26554	60.57576	54.21211	60.00000	48.00000	48.97959
SIETE O&G CORP.													
KEINATH #3-#5	PNR/GBG M	17.53801	3.72480	11.30198	9.23458	11.38502	2.39931	11.31451	8.88908	11.91545	15.00000	12.00000	10.20408
TOTAL		17.53801	3.72480	11.30198	9.23458	11.38502	2.39931	11.31451	8.88908	11.91545	15.00000	12.00000	10.20408
YATES PET. CORP.													
CREEK AL #1-#11	PNR/GBG M	19.04708	0.00000	40.24180	32.18090	19.31146	0.00000	37.41995	30.53518	33.87244	25.00000	40.00000	40.81633
TOTAL		19.04708	0.00000	40.24180	32.18090	19.31146	0.00000	37.41995	30.53518	33.87244	25.00000	40.00000	40.81633
ZONE TOTAL	PNR/GBG M	100.00000	100.00000	100.00000	100.00000	100.00000	100.00000	100.00000	100.00000	100.00000	100.00000	100.00000	100.00000
HANSON OP. CO.													
GINSBERG #1,2,16	7 RVRS	49.34484	100.00000	20.40308	30.12598	48.78702	100.00000	23.30155	37.83822	28.43083	21.42857	17.64706	21.05263
TOTAL		49.34484	100.00000	20.40308	30.12598	48.78702	100.00000	23.30155	37.83822	28.43083	21.42857	17.64706	21.05263
SIETE O&G CORP.													
KEINATH #1,#2	7 RVRS	11.08981	0.00000	38.60900	31.67989	0.02656	0.00000	34.66910	28.18327	22.26808	14.28571	11.76471	15.78948
KENWOOD #1-#6	7 RVRS	10.80217	0.00000	15.35348	15.66065	5.07991	0.00000	14.30438	13.93213	10.85802	28.57143	35.29412	42.10526
LANNING #1-#4	7 RVRS	15.43624	0.00000	25.38900	22.53348	0.08296	0.00000	22.80586	20.04638	31.99172	28.57143	23.52941	21.05263
PUEBLO FED #1	7 RVRS	13.32894	0.00000	0.24544	0.00000	0.34309	0.00000	0.25541	0.00000	0.85616	7.14286	5.88235	0.00000
UTE FED #1	7 RVRS	0.00000	0.00000	0.00000	0.00000	45.67046	0.00000	4.86370	0.00000	5.99919	0.00000	5.88235	0.00000
TOTAL		50.65516	0.00000	79.59692	69.87402	51.21298	0.00000	76.69845	62.16178	71.56917	78.57143	82.35294	78.94737
ZONE TOTAL	7 RVRS	100.00000	100.00000	100.00000	100.00000	100.00000	100.00000	100.00000	100.00000	100.00000	100.00000	100.00000	100.00000
HANSON OP. CO.													
BENSON, L.B. #1	PNR/GBG M	8.95687	29.53159	4.88368	10.43932	6.41755	16.95620	5.08304	10.81167	3.85231	2.94118	2.38095	2.94118
GINSBERG #1,2,16	7 RVRS	7.41524	20.74898	4.18783	3.12975	7.73792	21.26967	4.64330	4.16621	3.35591	8.82353	7.14286	5.88235
GINSBERG #3-15,17	PNR/GBG M	44.92844	46.78751	33.64684	42.07684	51.88659	59.88514	35.98682	43.09434	43.98072	32.35294	26.19048	32.35295
TOTAL		61.30055	97.04808	42.69835	55.64591	66.04106	98.11101	45.69318	58.07222	51.18894	44.11765	35.71429	41.17648
SIETE O&G CORP.													
KEINATH #1,#2	7 RVRS	1.66651	0.00000	7.92489	3.29118	0.00421	0.00000	6.90851	3.10314	2.62824	5.88235	4.76191	4.41176
KEINATH #3-#5	PNR/GBG M	14.90251	2.95194	8.98217	8.27521	9.58770	1.88899	9.05986	7.91033	10.50898	8.82353	7.14286	7.35294
KENWOOD #1-#6	7 RVRS	1.82328	0.00000	3.15138	1.62897	0.80571	0.00000	2.85043	1.53401	1.25781	11.76470	14.28571	11.76471
LANNING #1-#4	7 RVRS	2.31986	0.00000	5.21122	2.34098	0.01475	0.00000	4.54453	2.20722	3.77623	11.76471	9.52381	5.88235
PUEBLO FED #1	7 RVRS	2.00289	0.00000	0.05038	0.00000	0.05442	0.00000	0.05090	0.00000	0.07745	2.94118	2.38095	0.00000
UTE FED #1	7 RVRS	0.00000	0.00000	0.00000	0.00000	7.24361	0.00000	0.92934	0.00000	0.70813	0.00000	2.38095	0.00000
TOTAL		22.51485	2.95194	25.31984	15.53434	17.71040	1.88899	24.34357	14.75470	18.95684	41.17647	40.47619	29.41176
YATES PET. CORP.													
CREEK AL #1-#11	PNR/GBG M	16.18480	0.00000	31.98181	28.81975	16.24854	0.00000	29.96327	27.17308	29.87422	14.70588	23.80952	29.41176
TOTAL		16.18480	0.00000	31.98181	28.81975	16.24854	0.00000	29.96327	27.17308	29.87422	14.70588	23.80952	29.41176
GRAND TOTAL	BOTH ZONES	100.00000	100.00000	100.00000	100.00000	100.00000	100.00000	100.00000	100.00000	100.00000	100.00000	100.00000	100.00000

TABLE 2

NOTE: ALL OIL VOLUMES ARE EXPRESSED IN BARRELS.
ALL GAS VOLUMES ARE EXPRESSED IN MCF.

JOB 9.7098
05/25/90

HANSON-SIETE-YATES PROPOSED WATERFLOOD UNIT
SHUGART FIELD, EDDY COUNTY, NEW MEXICO
PERCENT UNIT PARTICIPATION OF INDIVIDUAL PARAMERERS
AT VARIOUS PARAMETER WEIGHTS
HANSON OP. CO. - PENROSE/MIDDLE GRAYBURG WFLD ZONE

PARAM-7098.WKS
TBL-3A-7098.PRN
TABLE 3-A

WEIGHTS (PERCENT)	CURRENT OIL PROD 7-12/89 (PERCENT)	CURRENT GAS PROD 7-12/89 (PERCENT)	OIL CUM 07/01/89 (PERCENT)	GAS CUM 07/01/89 (PERCENT)	PRIMARY OIL RES 07/01/89 (PERCENT)	PRIMARY GAS RES 07/01/89 (PERCENT)	PRIMARY OIL ULT (PERCENT)	PRIMARY GAS ULT (PERCENT)	SECONDARY OIL ULT (PERCENT)	PRODUCING WELLS 01/01/90 (PERCENT)	USEABLE WELLS 01/01/90 (PERCENT)	PRODUCTIVE ACREAGE (PERCENT)
100.000	63.415	96.275	48.458	58.605	69.294	97.801	51.268	80.578	54.212	60.000	48.000	48.980
90.000	57.073	86.648	43.611	52.744	62.364	87.841	46.139	54.518	48.791	54.000	43.200	44.082
80.000	50.732	77.020	38.765	46.884	55.435	78.081	41.012	48.461	43.370	48.000	38.400	39.184
75.000	47.561	72.206	36.342	43.953	51.970	73.201	38.449	45.432	40.659	45.000	36.000	36.735
70.000	44.390	67.393	33.920	41.023	48.505	68.320	35.886	42.403	37.948	42.000	33.600	34.286
66.667	42.277	64.183	32.304	39.070	46.196	65.067	34.177	40.384	36.141	40.000	32.000	32.653
60.000	38.049	57.765	29.074	35.183	41.576	58.560	30.759	36.345	32.527	36.000	28.800	29.388
50.000	31.707	48.138	24.228	29.302	34.647	48.800	25.633	30.288	27.106	30.000	24.000	24.490
40.000	25.366	38.510	19.383	23.442	27.717	39.040	20.506	24.230	21.685	24.000	19.200	19.592
33.333	21.138	32.092	16.152	19.535	23.098	32.534	17.089	20.192	18.071	20.000	16.000	16.327
30.000	19.024	28.883	14.537	17.581	20.788	29.280	15.380	18.173	16.264	18.000	14.400	14.694
25.000	15.854	24.069	12.114	14.651	17.323	24.400	12.816	15.144	13.553	15.000	12.000	12.245
20.000	12.683	19.255	9.691	11.721	13.859	19.520	10.253	12.115	10.842	12.000	9.600	9.796
10.000	6.341	9.628	4.846	5.860	6.929	9.760	5.127	6.058	5.421	6.000	4.800	4.898
5.000	3.171	4.814	2.423	2.930	3.465	4.880	2.563	3.029	2.711	3.000	2.400	2.449

TABLE 3A

WILLIAMSON PETROLEUM CONSULTANTS, INC.
MIDLAND, TEXAS
PAUL H. DAVIS/GLL

NOTE: ALL OIL VOLUMES ARE EXPRESSED IN BARRELS.
ALL GAS VOLUMES ARE EXPRESSED IN MCF.

JOB 9.7098
05/25/90

HANSON-SIETE-YATES PROPOSED WATERFLOOD UNIT
SHUGART FIELD, EDDY COUNTY, NEW MEXICO
PERCENT UNIT PARTICIPATION OF INDIVIDUAL PARAMERERS
AT VARIOUS PARAMETER WEIGHTS
SIETE O&G CORP. - PENROSE/MIDDLE GRAYBURG WFLD ZONE

PARAM-7098.WKS
TBL-3B-7098.PRN
TABLE 3-B

WEIGHTS (PERCENT)	CURRENT OIL PROD 7-12/89 (PERCENT)	CURRENT GAS PROD 7-12/89 (PERCENT)	OIL CUM 07/01/89 (PERCENT)	GAS CUM 07/01/89 (PERCENT)	PRIMARY OIL RES 07/01/89 (PERCENT)	PRIMARY GAS RES 07/01/89 (PERCENT)	PRIMARY OIL ULT (PERCENT)	PRIMARY GAS ULT (PERCENT)	SECONDARY OIL ULT (PERCENT)	PRODUCING WELLS 01/01/90 (PERCENT)	USEABLE WELLS 01/01/90 (PERCENT)	PRODUCTIVE ACREAGE (PERCENT)
100.000	17.538	3.725	11.302	9.235	11.395	2.399	11.315	8.889	11.915	15.000	12.000	10.204
90.000	15.784	3.352	10.172	8.311	10.256	2.159	10.183	8.000	10.724	13.500	10.800	9.184
80.000	14.030	2.980	9.042	7.388	9.116	1.919	9.052	7.111	9.532	12.000	9.600	8.163
75.000	13.154	2.794	8.476	6.926	8.546	1.799	8.486	6.667	8.937	11.250	9.000	7.653
70.000	12.277	2.607	7.911	6.464	7.977	1.680	7.920	6.222	8.341	10.500	8.400	7.143
66.667	11.692	2.483	7.535	6.156	7.597	1.600	7.543	5.926	7.944	10.000	8.000	6.803
60.000	10.523	2.235	6.781	5.541	6.837	1.440	6.789	5.333	7.149	9.000	7.200	6.122
50.000	8.769	1.862	5.651	4.617	5.698	1.200	5.657	4.445	5.958	7.500	6.000	5.102
40.000	7.015	1.490	4.521	3.694	4.558	0.960	4.526	3.556	4.766	6.000	4.800	4.082
33.333	5.846	1.242	3.767	3.078	3.798	0.800	3.772	2.963	3.972	5.000	4.000	3.401
30.000	5.261	1.117	3.391	2.770	3.419	0.720	3.394	2.667	3.575	4.500	3.600	3.061
25.000	4.385	0.931	2.825	2.309	2.849	0.600	2.829	2.222	2.979	3.750	3.000	2.551
20.000	3.508	0.745	2.260	1.847	2.279	0.480	2.263	1.778	2.383	3.000	2.400	2.041
10.000	1.754	0.372	1.130	0.923	1.140	0.240	1.131	0.889	1.192	1.500	1.200	1.020
5.000	0.877	0.186	0.565	0.462	0.570	0.120	0.566	0.444	0.596	0.750	0.600	0.510

TABLE 3B

WILLIAMSON PETROLEUM CONSULTANTS, INC.
MIDLAND, TEXAS
PAUL H. DAVIS/GLL

NOTE: ALL OIL VOLUMES ARE EXPRESSED IN BARRELS.
ALL GAS VOLUMES ARE EXPRESSED IN MCF.

JOB 8.7098
05/25/90

HANSON-SIETE-YATES PROPOSED WATERFLOOD UNIT
SHUGART FIELD, EDDY COUNTY, NEW MEXICO
PERCENT UNIT PARTICIPATION OF INDIVIDUAL PARAMERERS
AT VARIOUS PARAMETER WEIGHTS
YATES PET. CORP. - PENROSE/MIDDLE GRAYBURG WFLD ZONE

PARAM-7098.WKS
TBL-3C-7098.PRN
TABLE 3-C

WEIGHTS (PERCENT)	CURRENT OIL PROD 7-12/89 (PERCENT)	CURRENT GAS PROD 7-12/89 (PERCENT)	OIL CUM 07/01/89 (PERCENT)	GAS CUM 07/01/89 (PERCENT)	PRIMARY OIL RES 07/01/89 (PERCENT)	PRIMARY GAS RES 07/01/89 (PERCENT)	PRIMARY OIL ULT (PERCENT)	PRIMARY GAS ULT (PERCENT)	SECONDARY OIL ULT (PERCENT)	PRODUCING WELLS 01/01/90 (PERCENT)	USEABLE WELLS 01/01/90 (PERCENT)	PRODUCTIVE ACREAGE (PERCENT)
100.000	19.047	0.000	40.242	32.161	19.311	0.000	37.420	30.535	33.872	25.000	40.000	40.816
90.000	17.142	0.000	36.217	28.945	17.380	0.000	33.678	27.482	30.485	22.500	36.000	36.735
80.000	15.238	0.000	32.193	25.729	15.449	0.000	29.936	24.428	27.098	20.000	32.000	32.653
75.000	14.285	0.000	30.181	24.121	14.484	0.000	28.065	22.901	25.404	18.750	30.000	30.612
70.000	13.333	0.000	28.169	22.513	13.518	0.000	26.194	21.375	23.711	17.500	28.000	28.571
66.667	12.698	0.000	26.828	21.441	12.874	0.000	24.947	20.357	22.582	16.667	26.667	27.211
60.000	11.428	0.000	24.145	19.297	11.587	0.000	22.452	18.321	20.323	15.000	24.000	24.490
50.000	9.524	0.000	20.121	16.080	9.656	0.000	18.710	15.268	16.936	12.500	20.000	20.408
40.000	7.619	0.000	16.097	12.864	7.725	0.000	14.968	12.214	13.549	10.000	16.000	16.327
33.333	6.349	0.000	13.414	10.720	6.437	0.000	12.473	10.178	11.291	8.333	13.333	13.605
30.000	5.714	0.000	12.072	9.648	5.793	0.000	11.226	9.161	10.162	7.500	12.000	12.245
25.000	4.762	0.000	10.060	8.040	4.828	0.000	9.355	7.634	8.468	6.250	10.000	10.204
20.000	3.809	0.000	8.048	6.432	3.862	0.000	7.484	6.107	6.774	5.000	8.000	8.163
10.000	1.905	0.000	4.024	3.216	1.931	0.000	3.742	3.054	3.387	2.500	4.000	4.082
5.000	0.952	0.000	2.012	1.608	0.966	0.000	1.871	1.527	1.694	1.250	2.000	2.041

TABLE 3C

WILLIAMSON PETROLEUM CONSULTANTS, INC.
MIDLAND, TEXAS
PAUL H. DAVIS/GLL

NOTE: ALL OIL VOLUMES ARE EXPRESSED IN BARRELS.
ALL GAS VOLUMES ARE EXPRESSED IN MCF.

JOB 9.7098
05/25/90

HANSON-SIETE-YATES PROPOSED WATERFLOOD UNIT
SHUGART FIELD, EDDY COUNTY, NEW MEXICO
PERCENT UNIT PARTICIPATION OF INDIVIDUAL PARAMERERS
AT VARIOUS PARAMETER WEIGHTS
HANSON OP. CO. - SEVEN RIVERS WFLD ZONE

PARAM-7098.WKS
TBL-30-7098.PRN
TABLE 3-D

WEIGHTS (PERCENT)	CURRENT OIL PROD 7-12/89 (PERCENT)	CURRENT GAS PROD 7-12/89 (PERCENT)	OIL CUM 07/01/89 (PERCENT)	GAS CUM 07/01/89 (PERCENT)	PRIMARY OIL RES 07/01/89 (PERCENT)	PRIMARY GAS RES 07/01/89 (PERCENT)	PRIMARY OIL ULT (PERCENT)	PRIMARY GAS ULT (PERCENT)	SECONDARY OIL ULT (PERCENT)	PRODUCING WELLS 01/01/90 (PERCENT)	USEABLE WELLS 01/01/90 (PERCENT)	PRODUCTIVE ACREAGE (PERCENT)
100.000	49.345	100.000	20.403	30.126	48.787	100.000	23.302	37.838	28.431	21.429	17.647	21.053
90.000	44.410	90.000	18.363	27.113	43.908	90.000	20.971	34.054	25.588	19.286	15.882	18.947
80.000	39.476	80.000	16.322	24.101	39.030	80.000	18.641	30.271	22.745	17.143	14.118	16.842
75.000	37.009	75.000	15.302	22.594	36.590	75.000	17.476	28.379	21.323	16.071	13.235	15.789
70.000	34.541	70.000	14.282	21.088	34.151	70.000	16.311	26.487	19.902	15.000	12.353	14.737
66.667	32.897	66.667	13.602	20.084	32.525	66.667	15.534	25.225	18.954	14.286	11.765	14.035
60.000	29.607	60.000	12.242	18.076	29.272	60.000	13.981	22.703	17.059	12.857	10.588	12.632
50.000	24.672	50.000	10.202	15.063	24.394	50.000	11.651	18.919	14.215	10.714	8.824	10.526
40.000	19.738	40.000	8.161	12.050	19.515	40.000	9.321	15.135	11.372	8.571	7.059	8.421
33.333	16.448	33.333	6.801	10.042	16.262	33.333	7.767	12.613	9.477	7.143	5.882	7.018
30.000	14.803	30.000	6.121	9.038	14.636	30.000	6.990	11.351	8.529	6.429	5.294	6.316
25.000	12.336	25.000	5.101	7.531	12.197	25.000	5.825	9.460	7.108	5.357	4.412	5.263
20.000	9.869	20.000	4.081	6.025	9.757	20.000	4.660	7.568	5.686	4.286	3.529	4.211
10.000	4.934	10.000	2.040	3.013	4.879	10.000	2.330	3.784	2.843	2.143	1.765	2.105
5.000	2.467	5.000	1.020	1.506	2.439	5.000	1.165	1.892	1.422	1.071	0.882	1.053

TABLE 3D

WILLIAMSON PETROLEUM CONSULTANTS, INC.
MIDLAND, TEXAS
PAUL H. DAVIS/GLL

NOTE: ALL OIL VOLUMES ARE EXPRESSED IN BARRELS.
ALL GAS VOLUMES ARE EXPRESSED IN MCF.

JOB 9.7098
05/25/90

HANSON-SIETE-YATES PROPOSED WATERFLOOD UNIT
SHUGART FIELD, EDDY COUNTY, NEW MEXICO
PERCENT UNIT PARTICIPATION OF INDIVIDUAL PARAMERERS
AT VARIOUS PARAMETER WEIGHTS
SIETE O&G CORP. - SEVEN RIVERS WFLD ZONE

PARAM-7098.WKS
TBL-3E-7098.PRN
TABLE 3-E

WEIGHTS (PERCENT)	CURRENT OIL PROD 7-12/89 (PERCENT)	CURRENT GAS PROD 7-12/89 (PERCENT)	OIL CUM 07/01/89 (PERCENT)	GAS CUM 07/01/89 (PERCENT)	PRIMARY OIL RES 07/01/89 (PERCENT)	PRIMARY GAS RES 07/01/89 (PERCENT)	PRIMARY OIL ULT (PERCENT)	PRIMARY GAS ULT (PERCENT)	SECONDARY OIL ULT (PERCENT)	PRODUCING WELLS 01/01/90 (PERCENT)	USEABLE WELLS 01/01/90 (PERCENT)	PRODUCTIVE ACREAGE (PERCENT)
100.000	50.655	0.000	79.597	69.874	51.213	0.000	76.698	62.162	71.569	78.571	82.353	78.947
90.000	45.590	0.000	71.637	62.887	46.092	0.000	69.029	55.946	64.412	70.714	74.118	71.053
80.000	40.524	0.000	63.678	55.899	40.970	0.000	61.359	49.729	57.255	62.857	65.882	63.158
75.000	37.991	0.000	59.698	52.406	38.410	0.000	57.524	46.621	53.677	58.929	61.765	59.211
70.000	35.459	0.000	55.718	48.912	35.849	0.000	53.689	43.513	50.098	55.000	57.647	55.263
66.667	33.770	0.000	53.065	46.583	34.142	0.000	51.132	41.441	47.713	52.381	54.902	52.632
60.000	30.393	0.000	47.758	41.924	30.728	0.000	46.019	37.297	42.941	47.143	49.412	47.368
50.000	25.328	0.000	39.798	34.937	25.606	0.000	38.349	31.081	35.785	39.286	41.176	39.474
40.000	20.262	0.000	31.839	27.950	20.485	0.000	30.679	24.865	28.628	31.429	32.941	31.579
33.333	16.885	0.000	26.532	23.291	17.071	0.000	25.566	20.721	23.856	26.190	27.451	26.316
30.000	15.197	0.000	23.879	20.962	15.364	0.000	23.010	18.649	21.471	23.571	24.706	23.684
25.000	12.664	0.000	19.899	17.469	12.803	0.000	19.175	15.540	17.892	19.643	20.588	19.737
20.000	10.131	0.000	15.919	13.975	10.243	0.000	15.340	12.432	14.314	15.714	16.471	15.789
10.000	5.066	0.000	7.960	6.987	5.121	0.000	7.670	6.216	7.157	7.857	8.235	7.895
5.000	2.533	0.000	3.980	3.494	2.561	0.000	3.835	3.108	3.578	3.929	4.118	3.947

TABLE 3E

WILLIAMSON PETROLEUM CONSULTANTS, INC.
MIDLAND, TEXAS
PAUL H. DAVIS/GLL

NOTE: ALL OIL VOLUMES ARE EXPRESSED IN BARRELS.
ALL GAS VOLUMES ARE EXPRESSED IN MCF.

JOB 9.7098
05/25/90

HANSON-SIETE-YATES PROPOSED WATERFLOOD UNIT
SHUGART FIELD, EDDY COUNTY, NEW MEXICO
PERCENT UNIT PARTICIPATION OF INDIVIDUAL PARAMERERS
AT VARIOUS PARAMETER WEIGHTS
HANSON OP. CO. - PENROSE/MID. GRAYBURG & 7 RIVERS WFLD ZONES

PARAM-7098.WKS
TBL-3F-7098.PRN
TABLE 3-F

WEIGHTS (PERCENT)	CURRENT OIL PROD 7-12/89 (PERCENT)	CURRENT GAS PROD 7-12/89 (PERCENT)	OIL CUM 07/01/89 (PERCENT)	GAS CUM 07/01/89 (PERCENT)	PRIMARY OIL RES 07/01/89 (PERCENT)	PRIMARY GAS RES 07/01/89 (PERCENT)	PRIMARY OIL ULT (PERCENT)	PRIMARY GAS ULT (PERCENT)	SECONDARY OIL ULT (PERCENT)	PRODUCING WELLS 01/01/90 (PERCENT)	USEABLE WELLS 01/01/90 (PERCENT)	PRODUCTIVE ACREAGE (PERCENT)
100.000	61.301	97.048	42.698	55.646	66.041	98.111	45.693	58.072	51.169	44.118	35.714	41.176
90.000	55.170	87.343	38.429	50.081	59.437	88.300	41.124	52.265	46.052	39.706	32.143	37.059
80.000	49.040	77.638	34.159	44.517	52.833	78.489	36.555	46.458	40.935	35.294	28.571	32.941
75.000	45.975	72.788	32.024	41.734	49.531	73.583	34.270	43.554	38.377	33.088	26.786	30.882
70.000	42.910	67.934	29.889	38.952	46.229	68.678	31.985	40.651	35.818	30.882	25.000	28.824
66.667	40.867	64.699	28.466	37.097	44.027	65.407	30.462	38.715	34.113	29.412	23.810	27.451
60.000	36.780	58.229	25.619	33.388	39.625	58.867	27.416	34.843	30.701	26.471	21.429	24.706
50.000	30.650	48.524	21.349	27.823	33.021	49.056	22.847	29.036	25.584	22.059	17.857	20.588
40.000	24.520	38.819	17.079	22.258	26.416	39.244	18.277	23.229	20.468	17.647	14.286	16.471
33.333	20.434	32.349	14.233	18.549	22.014	32.704	15.231	19.357	17.056	14.706	11.905	13.725
30.000	18.390	29.114	12.810	16.694	19.812	29.433	13.708	17.422	15.351	13.235	10.714	12.353
25.000	15.325	24.262	10.675	13.911	16.510	24.528	11.423	14.518	12.792	11.029	8.929	10.294
20.000	12.260	19.410	8.540	11.129	13.208	19.622	9.139	11.614	10.234	8.824	7.143	8.235
10.000	6.130	9.705	4.270	5.565	6.604	9.811	4.569	5.807	5.117	4.412	3.571	4.118
5.000	3.065	4.852	2.135	2.782	3.302	4.906	2.285	2.904	2.558	2.206	1.786	2.059

TABLE 3F

WILLIAMSON PETROLEUM CONSULTANTS, INC.
MIDLAND, TEXAS
PAUL H. DAVIS/GLL

NOTE: ALL OIL VOLUMES ARE EXPRESSED IN BARRELS.
ALL GAS VOLUMES ARE EXPRESSED IN MCF.

JOB 9.7098
05/25/90

HANSON-SIETE-YATES PROPOSED WATERFLOOD UNIT
SHUGART FIELD, EDDY COUNTY, NEW MEXICO
PERCENT UNIT PARTICIPATION OF INDIVIDUAL PARAMERERS
AT VARIOUS PARAMETER WEIGHTS
SIETE O&G CORP. - PENROSE/MID. GRAYBURG & 7 RIVERS WFLD ZONES

PARAM-7098.WKS
TBL-3G-7098.PRN
TABLE 3-G

WEIGHTS (PERCENT)	CURRENT OIL PROD 7-12/89 (PERCENT)	CURRENT GAS PROD 7-12/89 (PERCENT)	OIL CUM 07/01/89 (PERCENT)	GAS CUM 07/01/89 (PERCENT)	PRIMARY OIL RES 07/01/89 (PERCENT)	PRIMARY GAS RES 07/01/89 (PERCENT)	PRIMARY OIL ULT (PERCENT)	PRIMARY GAS ULT (PERCENT)	SECONDARY OIL ULT (PERCENT)	PRODUCING WELLS 01/01/90 (PERCENT)	USEABLE WELLS 01/01/90 (PERCENT)	PRODUCTIVE ACREAGE (PERCENT)
100.000	22.515	2.952	25.320	15.534	17.710	1.889	24.344	14.755	18.957	41.176	40.476	29.412
90.000	20.263	2.657	22.788	13.981	15.939	1.700	21.909	13.279	17.061	37.059	36.429	26.471
80.000	18.012	2.362	20.256	12.427	14.168	1.511	19.475	11.804	15.165	32.941	32.381	23.529
75.000	16.886	2.214	18.990	11.651	13.283	1.417	18.258	11.066	14.218	30.882	30.357	22.059
70.000	15.760	2.066	17.724	10.874	12.397	1.322	17.040	10.328	13.270	28.824	28.333	20.588
66.667	15.010	1.968	16.880	10.356	11.807	1.259	16.229	9.836	12.638	27.451	26.984	19.608
60.000	13.509	1.771	15.192	9.321	10.626	1.133	14.606	8.853	11.374	24.706	24.286	17.647
50.000	11.257	1.476	12.660	7.767	8.855	0.944	12.172	7.377	9.478	20.588	20.238	14.706
40.000	9.006	1.181	10.128	6.214	7.084	0.756	9.737	5.902	7.583	16.471	16.190	11.765
33.333	7.505	0.984	8.440	5.178	5.903	0.630	8.115	4.918	6.319	13.725	13.492	9.804
30.000	6.754	0.886	7.596	4.660	5.313	0.567	7.303	4.426	5.687	12.353	12.143	8.824
25.000	5.629	0.738	6.330	3.884	4.428	0.472	6.086	3.689	4.739	10.294	10.119	7.353
20.000	4.503	0.590	5.064	3.107	3.542	0.378	4.869	2.951	3.791	8.235	8.095	5.882
10.000	2.251	0.295	2.532	1.553	1.771	0.189	2.434	1.475	1.896	4.118	4.048	2.941
5.000	1.126	0.148	1.266	0.777	0.886	0.094	1.217	0.738	0.948	2.059	2.024	1.471

TABLE 3G

WILLIAMSON PETROLEUM CONSULTANTS, INC.
MIDLAND, TEXAS
PAUL H. DAVIS/GLL

NOTE: ALL OIL VOLUMES ARE EXPRESSED IN BARRELS.
ALL GAS VOLUMES ARE EXPRESSED IN MCF.

JOB 9.7098
05/25/90

HANSON-SIETE-YATES PROPOSED WATERFLOOD UNIT
SHUGART FIELD, EDDY COUNTY, NEW MEXICO
PERCENT UNIT PARTICIPATION OF INDIVIDUAL PARAMERERS
AT VARIOUS PARAMETER WEIGHTS
YATES PET. CORP. - PENROSE/MID. GRAYBURG & 7 RIVERS WFLD ZONES

PARAM-7098.WKS
TBL-3H-7098.PRN
TABLE 3-H

WEIGHTS (PERCENT)	CURRENT OIL PROD 7-12/89 (PERCENT)	CURRENT GAS PROD 7-12/89 (PERCENT)	OIL CUM 07/01/89 (PERCENT)	GAS CUM 07/01/89 (PERCENT)	PRIMARY OIL RES 07/01/89 (PERCENT)	PRIMARY GAS RES 07/01/89 (PERCENT)	PRIMARY OIL ULT (PERCENT)	PRIMARY GAS ULT (PERCENT)	SECONDARY OIL ULT (PERCENT)	PRODUCING WELLS 01/01/90 (PERCENT)	USEABLE WELLS 01/01/90 (PERCENT)	PRODUCTIVE ACREAGE (PERCENT)
100.000	16.185	0.000	31.982	28.820	16.249	0.000	29.963	27.173	29.874	14.706	23.810	29.412
90.000	14.566	0.000	28.784	25.938	14.624	0.000	26.967	24.456	26.887	13.235	21.429	26.471
80.000	12.948	0.000	25.585	23.056	12.999	0.000	23.971	21.738	23.899	11.765	19.048	23.529
75.000	12.139	0.000	23.986	21.615	12.186	0.000	22.472	20.380	22.406	11.029	17.857	22.059
70.000	11.329	0.000	22.387	20.174	11.374	0.000	20.974	19.021	20.912	10.294	16.667	20.588
66.667	10.790	0.000	21.321	19.213	10.832	0.000	19.976	18.115	19.916	9.804	15.873	19.608
60.000	9.711	0.000	19.189	17.292	9.749	0.000	17.978	16.304	17.925	8.824	14.286	17.647
50.000	8.092	0.000	15.991	14.410	8.124	0.000	14.982	13.587	14.937	7.353	11.905	14.706
40.000	6.474	0.000	12.793	11.528	6.499	0.000	11.985	10.869	11.950	5.882	9.524	11.765
33.333	5.395	0.000	10.661	9.607	5.416	0.000	9.988	9.058	9.958	4.902	7.937	9.804
30.000	4.855	0.000	9.595	8.646	4.875	0.000	8.989	8.152	8.962	4.412	7.143	8.824
25.000	4.046	0.000	7.995	7.205	4.062	0.000	7.491	6.793	7.469	3.676	5.952	7.353
20.000	3.237	0.000	6.396	5.764	3.250	0.000	5.993	5.435	5.975	2.941	4.762	5.882
10.000	1.618	0.000	3.198	2.882	1.625	0.000	2.996	2.717	2.987	1.471	2.381	2.941
5.000	0.809	0.000	1.599	1.441	0.812	0.000	1.498	1.359	1.494	0.735	1.190	1.471

TABLE 3H

WILLIAMSON PETROLEUM CONSULTANTS, INC.
MIDLAND, TEXAS
PAUL H. DAVIS/GLL

NOTE: ALL OIL VOLUMES ARE EXPRESSED IN BARRELS.
ALL GAS VOLUMES ARE EXPRESSED IN MCF.

HANSON-SIETE-YATES
SHUGART (PNR/MID.GBG) LIST OF PROPERTIES
PROPOSED WATERFLOOD
CONSTANT ECONOMICS EFFECTIVE MAY 01, 1990
FIRST PERIOD 8.0 MONTHS YEAR ENDS DEC 31, 1990

NOTATION	PAGE	PROPERTY NAME	TRACT	FIELD (RESERVOIR)	ST, COUNTY	DIST*STREAMS	SUMMARY CODES/DESCRIPTION
DIS O/O: FNR DISCOUNTED AT MIDPOINT OF PERIOD, COMPOUNDED ANNUALLY. CAPITAL AND SALVAGE ARE DISCOUNTED AT THE TIME THEY OCCUR.							
		** SEVERANCE TAX TABLE 37 **					
	100	PNR/MID.GBG WFLD	Z10000	SHUGART (PNR/MID.GBG)	NM, EDDY	SE*O/G/W E	YA2
PROJECTION PHASE		1 PROPERTIES AND 0 SUMMARIES					

LEGEND

STREAM CODES
L1: LIQUID 1 GAS(G): GAS OIL(O): OIL SUL(P): SULPHUR NGL(P): NATURAL GAS LIQ ORS: ALL GROSSES
L2: LIQUID 2 LIQ(P): LIQUID CON(C): CONDENSATE WTR(W): WATER ($): INCOME/COST NET: ALL NETS

SUPPRESSIONS (SEE NOTATION)
* : THE PROPERTY IS TOTALLY SUPPRESSED FROM ALL SUMMARIES, EXCEPT THOSE REFERENCED BY SUMMARY CODE.
SUP: ON A PROPERTY, THE STREAM IS SUPPRESSED FROM ALL SUMMARIES. ON A SUMMARY, THE PRINT IS SUPPRESSED.

GRADING OF RESERVES
AXX VALUE..... V: MAJOR VALUE M: MINOR N: NEW
XAX TYPE ANALYSIS..... P: PERFORMANCE A: ANALOGY V: VOLUMETRIC M: MATERIAL BAL. O: OTHER C: COMBINATION
XXA QUALITY FACTOR..... 4: EXCELLENT 3: GOOD 2: FAIR 1: POOR 0: N/A

INTEREST TYPE (IN LEASE/SUMMARY NAME)
WI: WORKING INTEREST PI: ADDITIONAL PURCHASED INT. NPI: NET PROFIT INTEREST NPR: NPO RESERVES
OR: ADDITIONAL OVERRIDE TI: TOTAL INTEREST NPO: NET PROFIT OVERRIDE NP$: NPO FUTURE NET REVENUE

TABLE 4A

HANSON-SIETE-YATES
SHUGART (PNR/MID.GBG)
PROPOSED WATERFLOOD
CONSTANT ECONOMICS

DATA
RESERVES AND ECONOMICS
EFFECTIVE MAY 01, 1990
YEAR ENDS DEC 31, 1990

PNR/MID.GBG WFLD Z10000
SHUGART (PNR/MID.GBG)
NM, EDDY SE*O/G/W
HANSON-SIETE-YATES OPRS.

REM PRI + SEC RESERVES

VA2

COMB(WFLD)

OIL PRIMARY STREAM (BBL) LIFE = 19.1674 YRS TO 08/2009 PRIOR CUM = 1564107 RESERVES = 1500430 ULTIMATE = 3064537

INITIAL RATE	FINAL RATE	TIME LIMIT	SEGMENT YEARS	CUM YEARS	OIL RESERVES	OIL ULTIMATE	TYPE	EXP	EQUIV EXP D	NOMINAL DECLINE INITIAL	NOMINAL DECLINE FINAL	INSTANTANEOUS RATE	INSTANTANEOUS TIME
2567.9	2428.9	10/1990	.4167	.4167	12489	1576598	EXP	.000	.125000	.011128	.011128	2511	07/1990
1214.0	1062.2	10/1991	1.0000	1.4167	13637	1590233	EXP	.000	.125000	.011128	.011128	1136	04/1991
1062.2	15000.0	10/1993	2.0000	3.4167	126338	1716571	EXP	.000	-2.757876	-.110321	-.110321	3992	10/1992
15000.0	15000.0	10/1995	2.0000	5.4167	360000	2076571	EXP	.000	.000000	.000000	.000000	15000	10/1994
15000.0	1600.0	08/2009	13.7507	19.1674	987966	3064537	EXP	.000	.150204	.013563	.013563	6648	10/2000

WTR INDEPENDENT STREAM (BBL) LIFE = 19.1667 YRS TO 07/2009 PRIOR CUM = 0 RESERVES = 14046300 ULTIMATE = 14046300

INITIAL RATE	FINAL RATE	TIME LIMIT	SEGMENT YEARS	CUM YEARS	WTR RESERVES	WTR ULTIMATE	TYPE	EXP	EQUIV EXP D	NOMINAL DECLINE INITIAL	NOMINAL DECLINE FINAL	INSTANTANEOUS RATE	INSTANTANEOUS TIME
		07/2009	19.1667	19.1667	14046300	14046300	PER						

GAS (MCF) DEPENDENT ON OIL LIFE = 19.1674 YRS TO 08/2009 PRIOR CUM = 1763667 RESERVES = 415121 ULTIMATE = 2178788

INITIAL RATIO	FINAL RATIO	TIME LIMIT	SEGMENT YEARS	CUM YEARS	GAS RESERVES	GAS ULTIMATE	FUNCTION TYPE	OIL ULT LIMIT
.371	.200	08/2009	19.1674	19.1674	415121	2178788	SEMILOG 0	3064537

PRODUCTION TAXES OIL SEV = .037500 WTR SEV = .000000 GAS SEV = .037500 AD VALOREM = .040703

WORKING INTEREST DECIMAL	WORKING INTEREST TO LIMIT	OIL INTEREST DECIMAL	OIL INTEREST TO LIMIT	WTR INTEREST DECIMAL	WTR INTEREST TO LIMIT	GAS INTEREST DECIMAL	GAS INTEREST TO LIMIT
1.000000	FINAL	.800000	FINAL	1.000000	FINAL	.800000	FINAL

OPERATING EXPENSE $/MO EXPENSE	TO LIMIT	OIL PRICE PRICE	OIL PRICE TO LIMIT	WTR PRICE PRICE	WTR PRICE TO LIMIT	GAS PRICE PRICE	GAS PRICE TO LIMIT
28400	01/2001	16.48	FINAL	.00	FINAL	1.310	FINAL
26600	01/2002						
24800	01/2003						
23000	01/2004						
21200	01/2005						
19400	01/2006						
17600	01/2007						
15800	01/2008						
14000	FINAL						

OP COST ON WTR(WI) $/BBL EXPENSE	TO LIMIT	COMPLETIONS NUMBER	COMPLETIONS TO LIMIT
.10	FINAL	23	FINAL

CAPITAL $ AMOUNT	APPLY DATE
1131410	09/1990
142120	01/1992
142120	01/1993
142120	01/1994

NOTE: WATER PRODUCTION REPRESENTS MAKEUP INJECTION WATER TO BE PURCHASED

CHECKING FOR NEGATIVE FUTURE NET REVENUE BEFORE CAPITAL AFTER 3.67 YRS

TABLE 4B

HANSON-SIETE-YATES
SHUGART (PNR/MID.GBG)
PROPOSED WATERFLOOD
CONSTANT ECONOMICS

PROPERTY
RESERVES AND ECONOMICS
EFFECTIVE MAY 01, 1990
YEAR ENDS DEC 31, 1990

PNR/MID.GBG WFLD Z10000
SHUGART (PNR/MID.GBG)
NM, EDDY SE*O/G/W
HANSON-SIETE-YATES OPRS.

REM PRI + SEC RESERVES

VA2

COMB(WFLD)

	EXP INT	OIL INT	WTR INT	GAS INT		OIL (BBL)	WTR (BBL)	GAS (MCF)
LIFE = 19.17 BEG=	1.000000	.800000	1.000000	.800000	CUM=	1564107	0	1763667
MAX CMP= 23.0 END=	1.000000	.800000	1.000000	.800000	RES=	1500430	14046300	415121
AVG=	1.000000	.800000	1.000000	.800000	ULT=	3064537	14046300	2178788

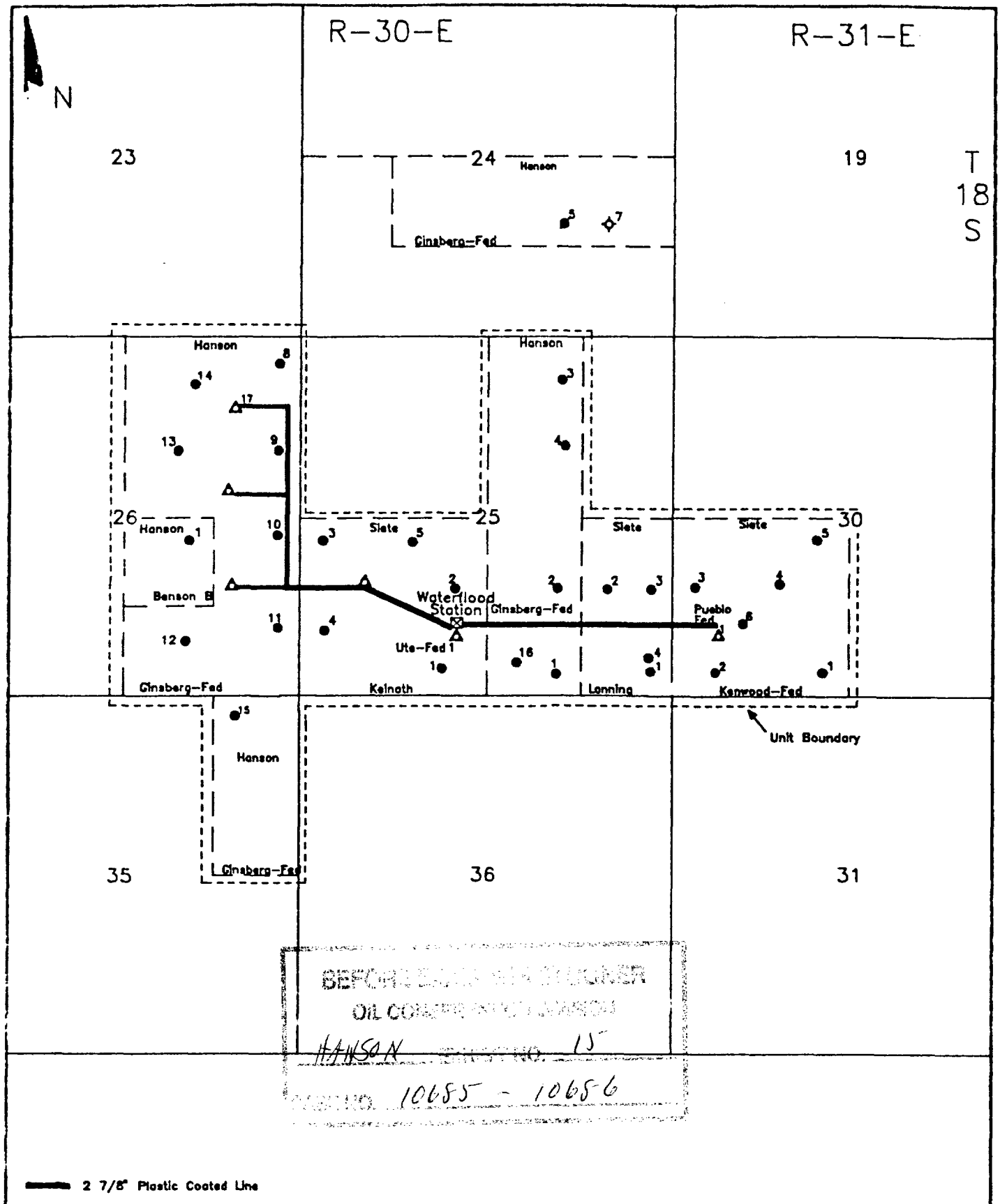
YEAR	GROSS RESERVES OIL (BBL)	GROSS RESERVES WTR (BBL)	GROSS RESERVES GAS (MCF)	NET RESERVES OIL (BBL)	NET RESERVES WTR (BBL)	NET RESERVES GAS (MCF)	BACK-CALC-AVG OIL $/BBL	BACK-CALC-AVG WTR $/BBL	BACK-CALC-AVG GAS $/MCF	PRODUCTION TAX LIQ ($)	PRODUCTION TAX GAS ($)
1990	16070	356300	5939	12856	356300	4751	16.48	.00	1.310	7945	233
1991	13833	1515000	5081	11066	1515000	4065	16.48	.00	1.310	6839	200
1992	36970	1513000	13438	29576	1513000	10750	16.48	.00	1.310	18278	528
1993	130591	1503000	45866	104473	1503000	36693	16.48	.00	1.310	64564	1803
1994	180000	1488000	59312	144000	1488000	47450	16.48	.00	1.310	88992	2331
1995	179096	1349700	54812	143277	1349700	43850	16.48	.00	1.310	88545	2154
1996	159492	1185000	45525	127594	1185000	36420	16.48	.00	1.310	78853	1789
1997	135535	1039700	38408	108428	1039700	29126	16.48	.00	1.310	67008	1431
1998	115178	891900	29382	92142	891900	23506	16.48	.00	1.310	56944	1155
1999	97877	735700	23898	78302	735700	19118	16.48	.00	1.310	48391	939
2000	83178	476700	19565	66541	476700	15652	16.48	.00	1.310	41122	769
2001	70682	371200	16109	56548	371200	12887	16.48	.00	1.310	34945	633
2002	60066	331200	13325	48053	331200	10660	16.48	.00	1.310	29697	524
2003	51044	280000	11068	40835	280000	8854	16.48	.00	1.310	25236	435
2004	43377	214700	9224	34702	214700	7379	16.48	.00	1.310	21446	362
SUB	1372987	13251100	388952	1098391	13251100	311161	16.48	.00	1.310	678805	15286
REM	127443	795200	26169	101955	795200	20936	16.48	.00	1.310	63008	1028
TOT	1500430	14046300	415121	1200346	14046300	332097	16.48	.00	1.310	741813	16314

YEAR	REVENUE AFTER PRODUCTION TAX OIL ($)	REVENUE AFTER PRODUCTION TAX WTR ($)	REVENUE AFTER PRODUCTION TAX GAS ($)	TOTAL ($)	AD VALOREM TAXES ($)	OPERATING COSTS ($)	CAPITAL COSTS ($)	EQUIPMENT SALVAGE($)	FUTURE NET REVENUE($)	DISCOUNTED 10.000 PCT	CUM DISC 10.000 PCT
1990	203922	0	5991	209913	8543	262832	1131410	0	-1192872	-1155570	-1155570
1991	175529	0	5125	180654	7352	492300	0	0	-318998	-285428	-1440998
1992	469134	0	13554	482688	19647	492096	142120	0	-171175	-144880	-1585878
1993	1657151	0	46265	1703416	69333	491100	142120	0	1000863	734983	-850895
1994	2284128	0	59828	2343956	95406	489600	142120	0	1616830	1082250	231355
1995	2272660	0	55289	2327949	94754	475776	0	0	1757419	1074022	1305377
1996	2023896	0	45921	2069817	84248	459300	0	0	1526269	847962	2153339
1997	1719885	0	36724	1756609	71499	444768	0	0	1240342	626461	2779800
1998	1461556	0	29638	1491194	60697	429996	0	0	1000501	459385	3239185
1999	1242026	0	24106	1266132	51536	414372	0	0	800224	334025	3573210
2000	1055474	0	19735	1075209	43764	388476	0	0	642969	243986	3817196
2001	896933	0	16249	913182	37169	356316	0	0	519697	179280	3996476
2002	762216	0	13441	775657	31570	330720	0	0	413367	129636	4126112
2003	647725	0	11164	658889	26818	303996	0	0	328075	93534	4219646
2004	550443	0	9304	559747	22785	275868	0	0	261094	67671	4287317
SUB	17422878	0	392334	17815012	725121	6107516	1557770	0	9424605	4287317	4287317
REM	1617212	0	26398	1643610	66902	965243	0	0	611465	128238	4415555
TOT	19039890	0	418732	19458622	792023	7072759	1557770	0	10036070	4415555	4415555

DISC NET REVENUE AT		
	8.000	PERCENT 5175184
	12.000	PERCENT 3771132
	15.000	PERCENT 2975889
	18.000	PERCENT 2340525
	20.000	PERCENT 1986544

TABLE 4C

NOTE: WATER PRODUCTION REPRESENTS MAKEUP INJECTION WATER TO BE PURCHASED



BEFORE EXAMINER
OIL CONSERVATION DIVISION
HANSON EXHIBIT NO. 15
CASE NO. 10655 - 10656

HANSON OPERATING CO.	
SHUGART WATERFLOOD	
Injection Lines	
4-12-92	Exhibit "C"

D

BENSON SHUGART WATERFLOOD UNIT

I. Conversion from Williamson Feasability Study

OPERATOR / LEASE NAME	WFLD ZONE	WILLIAMSON SECONDARY OIL ULT (PERCENT)	LESS YATES	0.7012578 NEW SECONDARY OIL ULT (PERCENT)
HANSON OPERATION COMPANY, INC.				
Benson, L.B. #1	PNR/GBG M	0.03852310	0.03852310	0.05493429
Ginsberg 1, 2, 16	7 RVRS	0.03355910	0.03355910	0.04785558
Ginsberg 3-15, 17	PNR/GBG M	0.43960720	0.43960720	0.62688387
SIETE O&G CORP.				
Keinath 1, 2	7 RVRS	0.02628240	0.02628240	0.03747894
Keinath 3-5	PNR/GBG M	0.10508980	0.10508980	0.14985901
Kenwood 1-6	7 RVRS	0.01257810	0.01257810	0.01793648
Lanning 1-4	7 RVRS	0.03776230	0.03776230	0.05384938
Pueblo Fed 1	7 RVRS	0.00077450	0.00077450	0.00110444
Ute Fed 1	7 RVRS	0.00708130	0.00708130	0.01009800
YATES PETROLEUM CORP.				
Creek AL 1-11	PNR/GBG M	0.29874220	-0.29874200	
TOTAL		1.00000000	0.70125780	1.00000000

II. Conversion to Tract Groupings for Participation Factors

			UNIT TRACT FACTOR
TRACT 1:	Kenwood 1-6; Pueblo Fed 1		0.01904093
TRACT 2:	Keinath 1,2; Keinath 3-5; Ute Fed 1		0.19743595
TRACT 3:	Lanning 1-4		0.05384938
TRACT 4A:	Ginsberg 1, 2, 16		0.04785558
TRACT 4B:	Ginsberg 3, 4	*	0.10502051
TRACT 4C:	Ginsberg 8, 9, 10, 11, 17	*	0.35985674
TRACT 4D:	Ginsberg 12, 13, 14	*	0.142262
TRACT 4E:	Ginsberg 15	*	0.01974462
TRACT 5:	Benson 1		0.05493429
			1.00000000

*NOTE: See attached sheet for calculations of these interests.

BEFORE EXAMINER STOGNER
OIL CONSERVATION DIVISION
HANSON EXHIBIT NO. 16
CASE NO. 10655 10656

10 June 2003

D

BENSON SHUGART WATERFLOOD UNIT

I. Distribution of .62688387 to Ginsberg Wells

GINSBERG WELLS	CUM PROD THRU AUGUST 1991	PCT. OF TOTAL PROD	0.62688387 DISTRIBUTE TO UNIT
3	53701	0.07827256	0.04906780
4	61236	0.08925529	0.05595270
8	25250	0.03680345	0.02307148
9	121687	0.17736639	0.11118812
10	183528	0.26750350	0.16769363
11	59067	0.08609383	0.05397083
12	49524	0.07218432	0.04525118
13	89328	0.13020113	0.08162098
14	16843	0.02454972	0.01538982
15	21609	0.03149646	0.01974462
17	4304	0.00627335	0.00393266
	686077	1.00000000	0.62688387

II. CONVERT TO UNIT TRACT GROUPINGS

	UNIT AGREE EXHIBIT "B"
Tract 4B: Ginsberg 3, 4	0.10502051
Tract 4C: Ginsberg 8, 9, 10, 11, 17	0.35985674
Tract 4D: Ginsberg 12, 13, 14	0.142262
Tract 4E: Ginsberg 15:	0.01974462
	0.62688387

D

D

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION
POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501

FORM C-108
Revised 7-1-81

APPLICATION FOR AUTHORIZATION TO INJECT

I. Purpose: [XX] Secondary Recovery [ ] Pressure Maintenance [ ] Disposal [ ] Storage
Application qualifies for administrative approval? [XX] yes [ ] no

II. Operator: Hanson Operating Company, Inc.

Address: P. O. Box 1515 Roswell, New Mexico 88202-1515

Contact party: David Sweeney Phone: 505-622-7330

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

IV. Is this an expansion of an existing project? [ ] yes [X] no
If yes, give the Division order number authorizing the project _____.

V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.

* VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.

VII. Attach data on the proposed operation, including:

1. Proposed average and maximum daily rate and volume of fluids to be injected;
2. Whether the system is open or closed;
3. Proposed average and maximum injection pressure;
4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and
5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).

*VIII. Attach appropriate geological data on the injection zone including appropriate lithologic detail, geological name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such source known to be immediately underlying the injection interval.

IX. Describe the proposed stimulation program, if any.

* X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division they need not be resubmitted.)

* XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.

BEFORE EXAMINER STOGNER
OIL CONSERVATION DIVISION
HANSON EXHIBIT NO. 17
CASE NO. 10285 & 10286

XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground source of drinking water.

XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.

XIV. Certification

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

Name: David Sweeney Title: Drilling & Production Superintender

Signature: David Sweeney Date: February 18, 1993

* If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be duplicated and resubmitted. Please show the date and circumstance of the earlier submittal.

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

C-108
Application For Authorization To Inject
Hanson Operating Company, Inc.
Eddy County, New Mexico

Existing Wells:	Proposed Wells to Drill:
Pueblo Federal #1 M 30-18S-31E	Ginsberg Federal #18 26-18S-30E
Ute Federal #1 N 25-18S-30E	Ginsberg Federal #19 26-18S-30E
Ginsberg Federal #17 A 26-18S-30E	Keinath Federal #6 25-18S-30E

I. The purpose of this application is to request authorization to inject into the 7 Rivers, Penrose & Middle Grayburg formation in the six above mentioned wells for the purpose of secondary recovery.

Hanson Operating Company, Inc., plans to convert 3 existing wells and drill 3 wells for injectors. The Ute Federal #1 and the Pueblo Federal #1 will inject water into the 7 Rivers formation. The Ginsberg Federals #17, #18 & #19 and the Keinath Federal #6 will inject water into the Penrose and Middle Grayburg formations.

II. Operator: Hanson Operating Company, Inc.
P. O. Box 1515
Roswell, New Mexico 88202-1515
David Sweeney 505-622-7330

III. Well Data: See Attachment A.

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

V. See attached maps, Attachment B.

VI. See Attachment C.

VII. 1. Proposed average daily injection volume approximately 600 BWPD per injection well in the Penrose and Middle Grayburg formation. In the 7 Rivers formation it is proposed to inject approximately 100-250 BWPD per injection well. Maximum daily injection volume for the Penrose & Middle Grayburg formation approximately 1000 BWPD per injection well. In the 7 Rivers formation approximately 300 BWPD per injection well.

2. This will be a closed system.

3. A step rate test will be run independently in the 7 Rivers, Penrose and Middle Grayburg formations. Proposed maximum injection pressure approximately 2000 Psi.

4. It is proposed to re-enter the Lanning Federal #3 and the Lanning Federal #4 wells, which are currently SI. These 2 wells should produce sufficient amounts of water from the Penrose, Middle Grayburg formations to utilize in the proposed flood. The 7 Rivers perforations in the Lanning Federal #3 (2515-2534') will be squeezed with sufficient cement to isolate the 7 Rivers formation. The 7 Rivers perforations in the Lanning Federal #4 (2526-2544') will be squeezed with sufficient cement to isolate the 7 Rivers formation. Several water analyses are attached. Attachment D. If there is not a sufficient supply of produced water in the above mentioned wells, the City of Carlsbad Water System could be utilized.
See VI attachment for tabulation of data on these wells. Attachment C.

5. Not applicable.

VIII. 1. The zones we propose to inject into are described in descending order. (Using Hanson Operating designations).

a. Permian 7 Rivers formation "C" Zone: This zone is composed of very fine grained sub-angular to sub-rounded quartz sandstone with an approximate thickness of 20 feet. The depth of this zone is approximately +1100 feet subsea. (or at a drill depth of approximately 2470 feet).

b. Permian Queen Formation "Third" Penrose Sand: This sand is composed of very fine grained sub-angular to sub-rounded quartz sandstone with an approximate thickness of 10 feet. The depth of this zone is approximately +335 feet subsea. (or at a drill depth of approximately 3160 feet).

c. Permian Grayburg Formation "Third" Sand: This sand is composed of very fine grained sub-angular to sub-rounded quartz sandstone with an approximate thickness of 10 feet. The depth of this zone is approximately +55 feet subsea. (or at a drill depth of approximately 3440 feet).

2. A survey of drinking water sources in the area was done using New Mexico State Engineers Office data and it was found that the only drinking water sources in the area are found at a depth of less than 275 feet. These water zones are located in the Permian (or possibly Triassic) Redbeds. Survey of Hanson Operating records showed that the shallow water zones penetrated by Hanson's wells contained sulfur water and that drinking water was not found. No drinking water is present below the proposed injection zones.

IX. The proposed injection intervals in the Keinath Federal #6, Ginsberg Federal #18 & #19 (Penrose, Middle Grayburg) will be acidized with 2000 gal 15% acid and sand water fraced with 30000 gal water and 40000# sand per zone. The Pueblo Federal #1 injection interval in the 7 Rivers will be acidized with 1500 gal of 15% acid then sand water fraced with 30000 gal of water and 50000# of sand.

X. Logs will be filed in your office when the drilling is completed on the 3 wells. The Ginsberg Federal #17, Pueblo Federal #1 and Ute Federal #1 logs have been filed with your office when they were completed.

XI. One water well was located within the one mile radius of the injection wells. Records at the State Engineers Office confirmed this water well and no other wells. The water well is in Sec. 26-T. 18S-R. 30E, SE NW SE. Depth is at 250'. Attached is a map & water analysis of Snyder Ranch water well. Attachment E & F.

XII. All relevant data available was examined to determine if any open faults or any other hydrologic connection between the disposal zones and any underground source of drinking water existed and it was determined that these geologic or engineering conditions do not exist in the flood area.

XIII. Proof of Notice

1. Certified letters sent to the surface owner and offset operators-attached. Attachment G.

2. Copy of legal advertisement attached. Attachment H.

XIV. Certification is signed.

Hanson Operating Company, Inc.
Shugart Water Flood
Proposed Injection Wells
Well Data
Attachment "A"
Page 1

Lease Name/Location	Casing Strings	Tubing	Packer	Injection Formation	Proposed Injection Interval (Perfs)	Original Purpose Of Well	Other Perfs	1-Next Higher (shallower) Oil or Gas Zone 2-Next Lower (deeper) Oil or Gas Zone
Pueblo Federal #1 M 30-18S-31E SW 1/4 SW 1/4 930' FSL & 660' FWL	13-3/8" 48# @503' (circ 50 sx). 8-5/8" 24# @1979' (TOC surface). 5-1/2" 15.5# @6125' (TOC 1900' CBL).	2-3/8" 4.7# J-55 plastic coated. To be set @2350.	Baker Model AD-1 Tension Packer plastic coated or equivalent.	7 RVRS	2469-2487'	Drilled as a Delaware Test. Presently Penrose M-GRBG Production	3639-3648'	1-None. 2-Queen formation.
..ce Federal #1 N 25-18S-30E SE 1/4 SW 1/4 930' FSL & 2310' FWL	13-3/8" 48# @362' (circ 30 sx). 8-5/8" 24# @2004' (circ 60 sx). 5-1/2" 15.5# @6000' (TOC 1850' CBL).	2-3/8" 4.7# J-55 plastic coated. To be set @2350'.	Baker Model AD-1 Tension Packer plastic coated or equivalent.	7 RVRS	2469-2487'	Drilled as a Delaware Test. Presently SI.	2463-2487' 3640-3658'	1-None. 2-Queen formation.
Ginsberg Federal #17 A 26-18S-30E NE 1/4 NE 1/4 990' FNL & 990' FEL	8-5/8" 24# @585' (circ 40 sx). 5-1/2" 15.5# & 17# @3475' (circ).	2-3/8" 4.7# J-55 plastic coated. To be set @3050'.	*Upper Packer: Baker Model AR-1. Lower Packer: Baker Model R-3.	Penrose M-GRBG	3074-3082' 3390-3398'	Developmental Oil Well.	2082-2090' 2153-2168' 2648-2658' 3074-3082' 3354-3362'	1-7 Rivers 2-Lower Grayburg
PROPOSED TO DRILL:								
Ginsberg Federal #18 26-18S-30E SW 1/4 NE 1/4	8-5/8" 24# @750' (circ). 5-1/2" 15.5# @3550' (circ).	2-3/8" 4.7# J-55 plastic coated. To be set @3050'.	*Upper Packer: Baker Model AR-1. Lower Packer: Baker Model R-3.	Penrose M-GRBG	3160-3170' 3440-3460'	To be drilled as a WIW.	None	1-7 Rivers 2-Lower Grayburg
Ginsberg Federal #19 26-18S-30E SW 1/4 NE 1/4 SE 1/4	8-5/8" 24# @750' (circ). 5-1/2" 15.5# @3550' (circ).	2-3/8" 4.7# J-55 plastic coated. To be set @3050'.	*Upper Packer: Baker Model AR-1. Lower Packer: Baker Model R-3.	Penrose M-GRBG	3190-3200' 3480-3490'	To be drilled as a WIW.	None	1-7 Rivers 2-Lower Grayburg
..inath Federal #6 25-18S-30E NW 1/4 SW 1/4	8-5/8" 24# @750' (circ). 5-1/2" 15.5# @3550' (circ).	2-3/8" 4.7# J-55 plastic coated. To be set @3050'.	*Upper Packer: Baker Model AR-1. Lower Packer: Baker Model R-3.	Penrose M-GRBG	3180-3200' 3460-3480'	To be drilled as a WIW.	None	1-7 Rivers 2-Lower Grayburg

*SEE ATTACHED DIAGRAM

HANSON OPERATING COMPANY, INC.
United Bank Plaza, Suite 1200
Post Office Box 1515
Roswell, New Mexico 88202-1515
Phone: (505) 622-7330

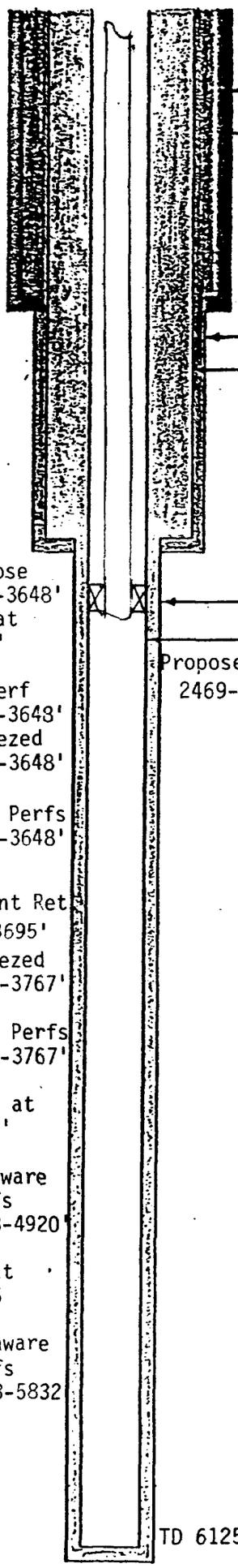
WELL BORE SKETCH

OPERATOR/LEASE/WELL Hanson Operating Company, Inc. Pueblo Fed.#1 DATE _____

LOCATION SW ¼ SW ¼ M Sec.30-T.18S-R.31E 930' FSL & 660' FWL

FIELD/POOL Shugart / Yates 7 RVRS Queen GRBG

PLUG BACK DEPTH 3695' KB _____ ELEVATION 3561'



Hole Size 17½"

SURFACES CASING:
Size 13-3/8" Weight 48# Grade J-55
Set at 503' with 450 Sacks Cement
Circulate 50 Sacks to Surface
Remarks: _____

Hole Size 12¼"

INTERMEDIATE CASING:
Size 8-5/8" Weight 24# Grade J-55
Set at 1979' with 850 Sacks Cement
Circulate _____ Sacks to Surface
Cement Top: Calculated 600 Temperature Survey _____
Remarks: Pumped 300 sx down backside. Circ 5 sx to surface

Hole Size 7-7/8"

PRODUCTION CASING:
Size 5½" Weight 15.5# Grade J-55
Set at 6125' with 1470 Sacks Cement
Cement Top: Calculated 1900' Temperature Survey CBL
Remarks: DV Tool at 3028'

TUBING:
Size 2-3/8" Plastic Coated Weight 4.7# Grade J-55
Number of Joints _____ Set at _____
Packer Set at 2120'
Bottom Arrangement: Type AD-1 Baker Model

RODS:
Size _____ Number _____
Gas Anchor Set at _____
Pump Set at _____
Arrangement: _____

It is proposed to set CIBP at 3530' and cap w/cement.
Perf 7 RVRS at 2469-2487 and inject into 7 RVRS.

ATTACHMENT A
Page 2

HANSON OPERATING COMPANY, INC.
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Phone: (505) 622-7330

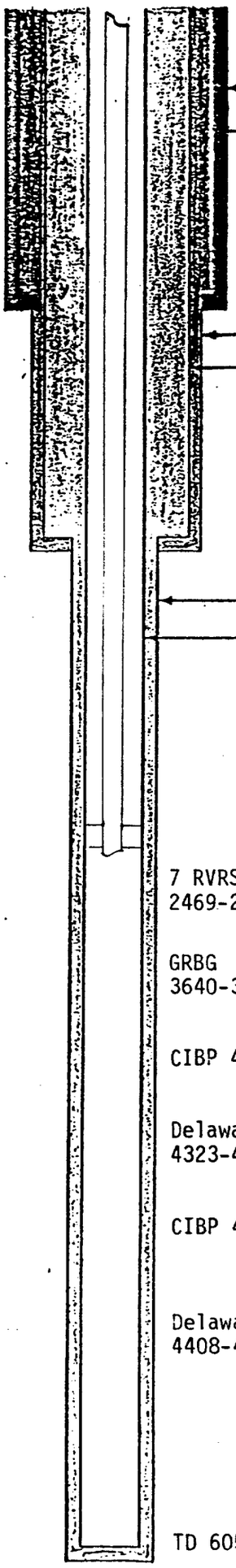
WELL BORE SKETCH

OPERATOR/LEASE/WELL Hanson Operating Company, Inc. Ute Fed. #1 DATE _____

LOCATION SE ¼ SW¼ N Sec.25-T.18S-R.30E

FIELD/POOL Shugart / yates 7 RVRS Queen GRBG

PLUG BACK DEPTH 4290' KB _____ ELEVATION 3548' GR



Hole Size 17½"

SURFACES CASING:
Size 13-3/8" Weight 48# Grade J-55
Set at 362' with 330 Sacks Cement
Circulate 30 Sacks to Surface
Remarks: _____

Hole Size 12¼"

INTERMEDIATE CASING:
Size 8-5/8" Weight 24# Grade J-55
Set at 2004' with 265 Sacks Cement
Circulate 60 Sacks to Surface
Cement Top: Calculated _____ Temperature Survey _____
Remarks: _____

Hole Size 7-7/8"

PRODUCTION CASING:
Size 5½" Weight 15.5# Grade J-55
Set at 6050' with 780 Sacks Cement
Cement Top: Calculated 1850' Temperature Survey CBL
Remarks: _____

TUBING: Plastic
Size 2-3/8" Coated Weight 4.7# Grade J-55
Number of Joints _____ Set at _____
Packer Set at 2420'
Bottom Arrangement: AD-1 Baker Model

RODS:
Size _____ Number _____
Gas Anchor Set at _____
Pump Set at _____
Arrangement: _____

It is proposed to set CIBP at 3630' cap w/ cement.
Inject into 7 RVRS zone 2469-2487'.

ATTACHMENT A
Page 3

HANSON OPERATING CO. PANY, INC.

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Roswell, New Mexico 88202-1515

Phone: (505) 622-7330

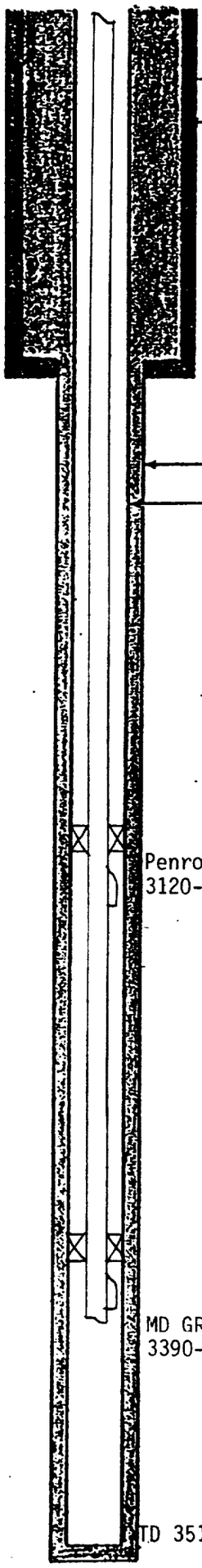
WELL BORE SKETCH

OPERATOR/LEASE/WELL Hanson Operating Company, Inc. Ginsberg Federal #17

LOCATION NE ¼ NE¼ A Sec.26-T.18S-R.30E 990' FNL & 990' FEL

FIELD/POOL Shugart /Yates 7 RVRS Queen GRBG

PLUG BACK DEPTH 3456' KB _____ ELEVATION 3466'



Hole Size 11"

SURFACE CASING:
Size 8-5/8" Weight 24# Grade J-55
Set at 585' with 300 Sacks Cement
Circulate 40 Sacks to Surface
Remarks:

Hole Size 7-7/8"

PRODUCTION CASING:
Size 5½" Weight 15.5# & 17# Grade J-55
Set at 3475' with 1400 Sacks Cement
Cement Top: Calculated _____ Temperature Survey _____
Remarks: 250 sx circ to surface

TUBING: Plastic
Size 2-3/8" Coated Weight 4.7# Grade J-55
Number of Joints _____ Set at _____
Packer Set at 3070' & 3340'
Bottom Arrangement: AR-1 Baker Model & R-3 Baker Model

RODS:
Size _____ Number _____
Gas Anchor Set at _____
Pump Set at _____
Arrangement:

It is proposed to squeeze all perfs (2082-2090' & 2158-2168') 7 RVRS, Bowers (2648-2658', Penrose (3074-3082') & MD GRBG (3354-3362').

HANSON OPERATING CO. PANY, INC.

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WELL BORE SKETCH

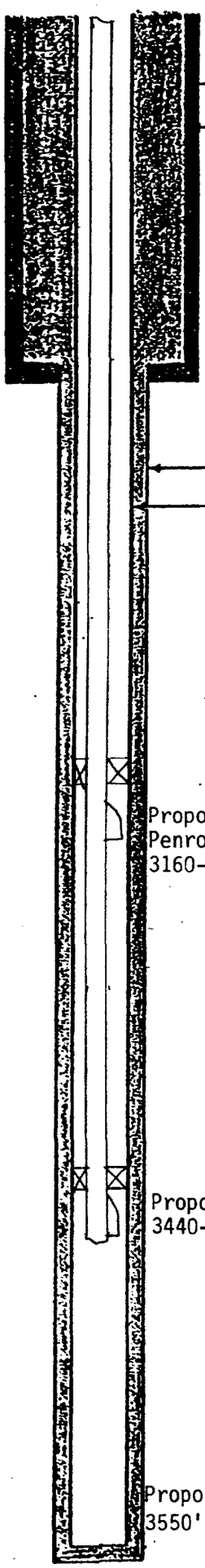
OPERATOR/LEASE/WELL Hanson Operating Company, Inc. Ginsberg Federal #18

LOCATION SWSENE Sec.26-T.18S-R.30E

FIELD/POOL Shugart / Yates 7 RVRS Queen GRBG

PLUG BACK DEPTH _____ KB _____ ELEVATION _____

Propose to drill as injector.



Hole Size 12¼"

SURFACE CASING:
Size 8-5/8" Weight 24# Grade J-55
Set at 750' with 475 Sacks Cement
Circulate cement Sacks to Surface
Remarks: _____

Hole Size 7-7/8"

PRODUCTION CASING:
Size 5½" Weight 15.5# Grade J-55
Set at 3550' with 425 Sacks Cement
Cement Top: Calculated _____ Temperature Survey _____
Remarks: circ to surface
DV Tool set 3000'±

TUBING: Plastic
Size 2-3/8" coated Weight 4.7# Grade J-55
Number of Joints _____ Set at _____
Packer Set at 3110' & 3390'
Bottom Arrangement: AR-1 Baker Model & R-3 Baker Model

RODS:
Size _____ Number _____
Gas Anchor Set at _____
Pump Set at _____
Arrangement: _____

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Roswell, New Mexico 88202-1515

Phone: (505) 622-7330

WELL BORE SKETCH

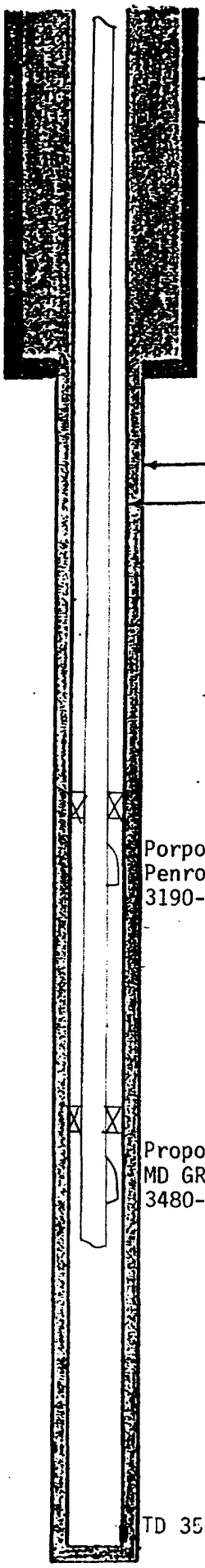
OPERATOR/LEASE/WELL Hanson Operating Company, Inc. Ginsberg Federal #19

LOCATION SWNESE Sec.26-T.18S-R.30E

FIELD/POOL Shugart / Yates 7 RVRS Queen GRBG

PLUG BACK DEPTH _____ KB _____ ELEVATION _____

Proposed to drill as injector



Hole Size 12¼"

SURFACE CASING:
Size 8-5/8" Weight 24# Grade J-55
Set at 750' with 475 Sacks Cement
Circulate cement Sacks to Surface
Remarks: _____

Hole Size 7-7/8"

PRODUCTION CASING:
Size 5½" Weight 15.5# Grade J-55
Set at 3550' with 425 Sacks Cement
Cement Top: Calculated _____ Temperature Survey _____
Remarks: Circ to surface
DV Tool set 3000'±

TUBING: Plastic
Size 2-3/8" Coated Weight 4.7# Grade J-55
Number of Joints _____ Set at _____
Packer Set at 3140' & 3430'
Bottom Arrangement: AR-1 Baker Model & R-3 Baker Model

RODS:
Size _____ Number _____
Gas Anchor Set at _____
Pump Set at _____
Arrangement: _____

10

HANSON OPERATING CO PANY, INC.

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Post Office Box 1515
Roswell, New Mexico 88202-1515

Phone: (505) 622-7330

WELL BORE SKETCH

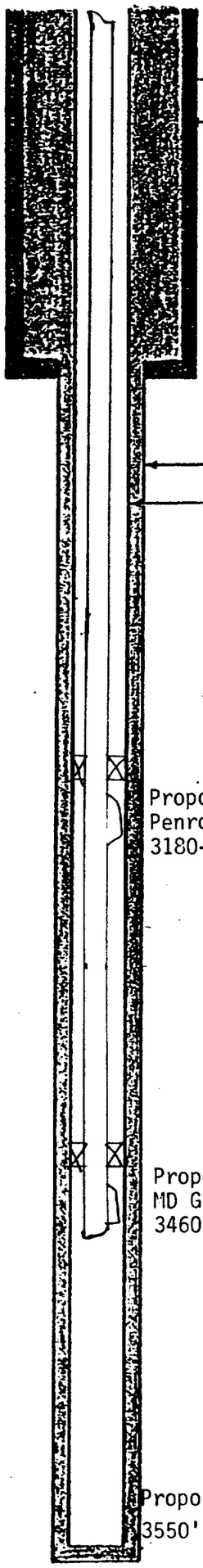
OPERATOR/LEASE/WELL Hanson Operating Company, Inc. Keinath Federal #6

LOCATION NW¼ SW ¼ Sec.25-T.18S-R.30E

FIELD/POOL Shugart / Yates 7 RVRS Queen GRBG

PLUG BACK DEPTH _____ KB _____ ELEVATION _____

Proposed to drill as injector



Hole Size 12¼"

SURFACE CASING:
Size 8-5/8" Weight 24# Grade J-55
Set at 750' with 475 Sacks Cement
Circulate cement Sacks to Surface
Remarks: _____

Hole Size 7-7/8"

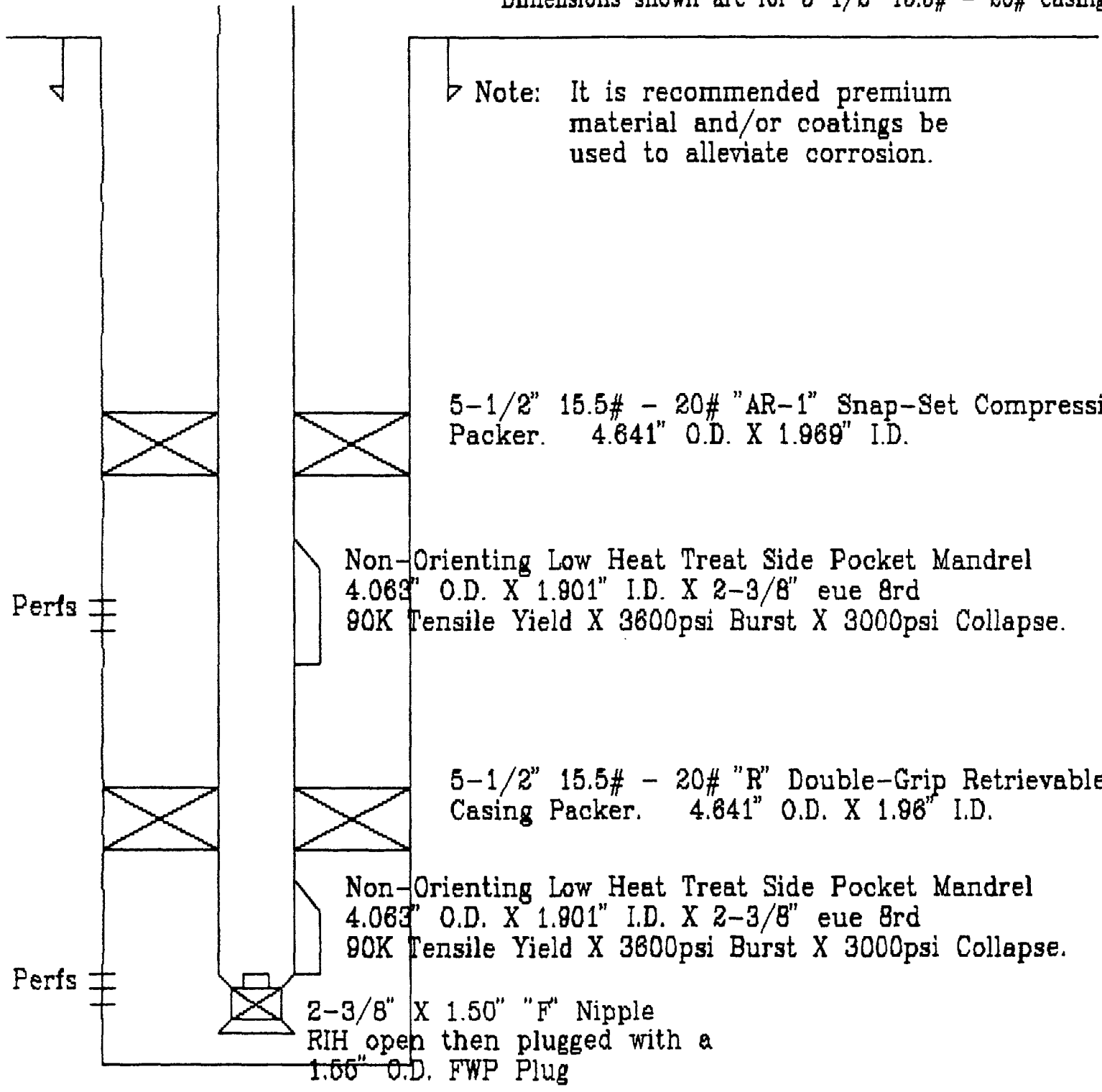
PRODUCTION CASING:
Size 5½" Weight 15.5# Grade J-55
Set at 3550' with 425 Sacks Cement
Cement Top: Calculated _____ Temperature Survey _____
Remarks: DV Tool set 3000±
Circ to surface.

TUBING: Plastic
Size 2-3/8" Coated Weight 4.7# Grade J-55
Number of Joints _____ Set at _____
Packer Set at 3130' & 3410'
Bottom Arrangement: AR-1 Baker Model & R-3 Baker Model-

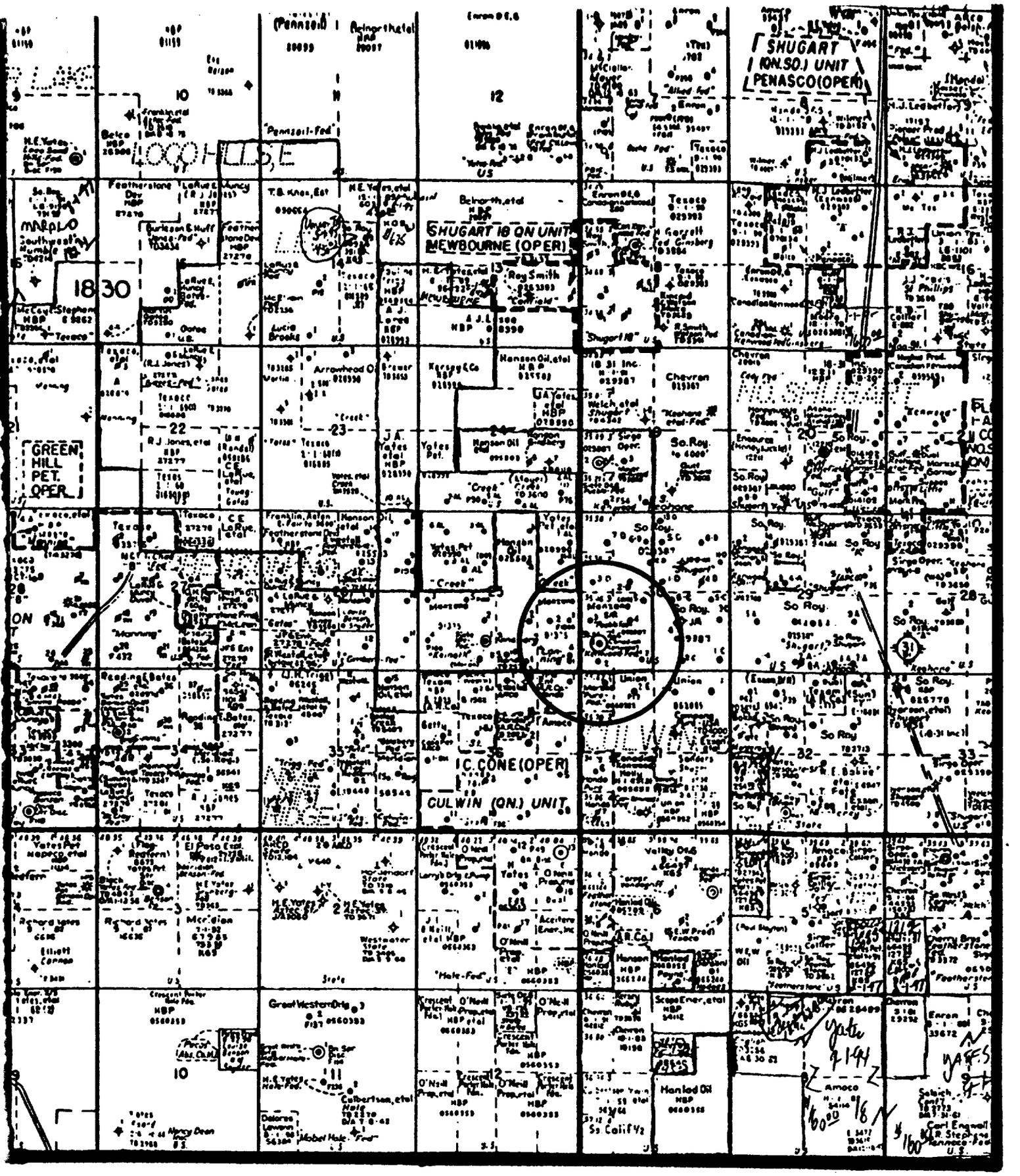
RODS:
Size _____ Number _____
Gas Anchor Set at _____
Pump Set at _____
Arrangement: _____

Two Zone St addle Using C ompression Set Packers And Compensated Flow Regulators.

Dimensions shown are for 5-1/2" 15.5# - 20# casing.



Regulators will be Jr-WF-RF 3-03 Stainless Steel Reverse Flow Waterflood Regulators with M-BK2 3-03 Stainless Steel Latches. 1" O.D. with a flow range of 200 to 900 BBL/day fresh water.



HANSON OPERATING COMPANY, INC.

P.O. BOX 1515 ROSWELL, NEW MEXICO 88202-1515

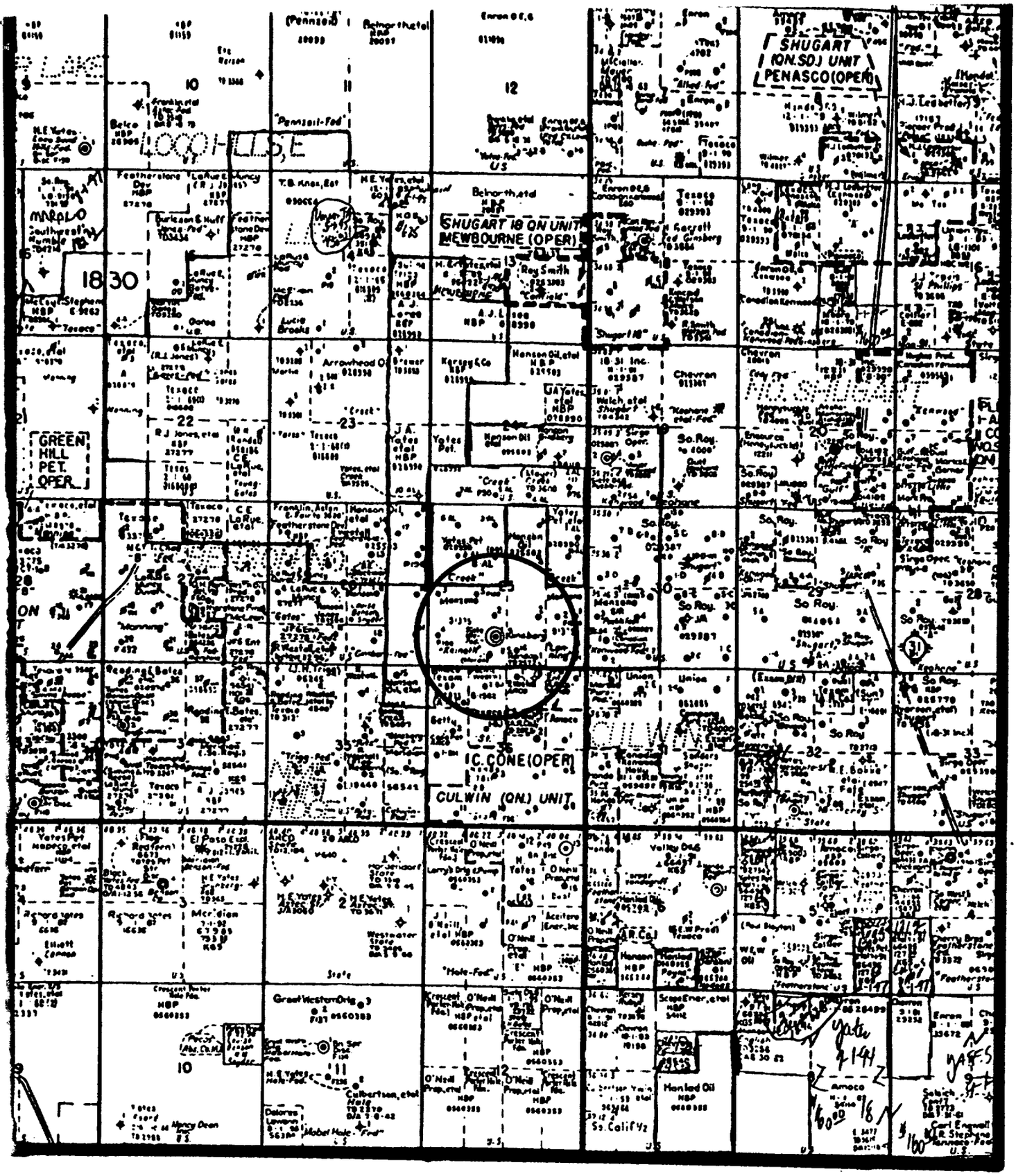
PUEBLO FEDERAL #1

PROPOSED INJECTION WELL

sec 30-T18S-R31E
sw sw (930 FSL & 660 FWL)

EDDY COUNTY, NEW MEXICO

ATTACHMENT B



HANSON OPERATING COMPANY, INC.

P.O. BOX 1515 ROSWELL, NEW MEXICO 88202-1515

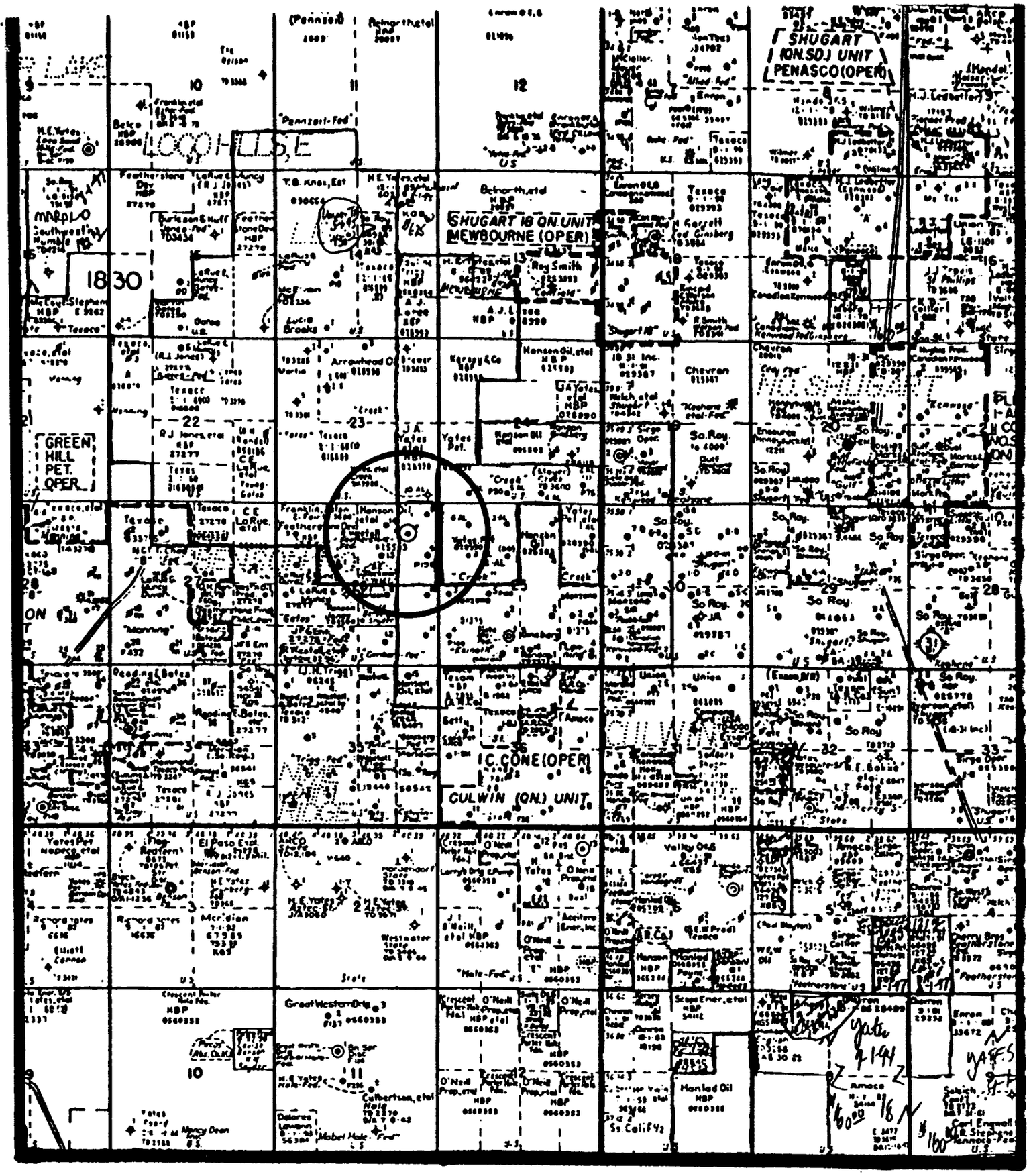
UTE FEDERAL #1

PROPOSED INJECTION WELL

sec 25-T18S-R30E
se sw (930 FSL & 2310 FWL)

EDDY COUNTY, NEW MEXICO

ATTACHMENT B
Page 2



HANSON OPERATING COMPANY, INC.

P. O. BOX 1515 ROSWELL, NEW MEXICO 88202-1515

GINSBERG FEDERAL #17

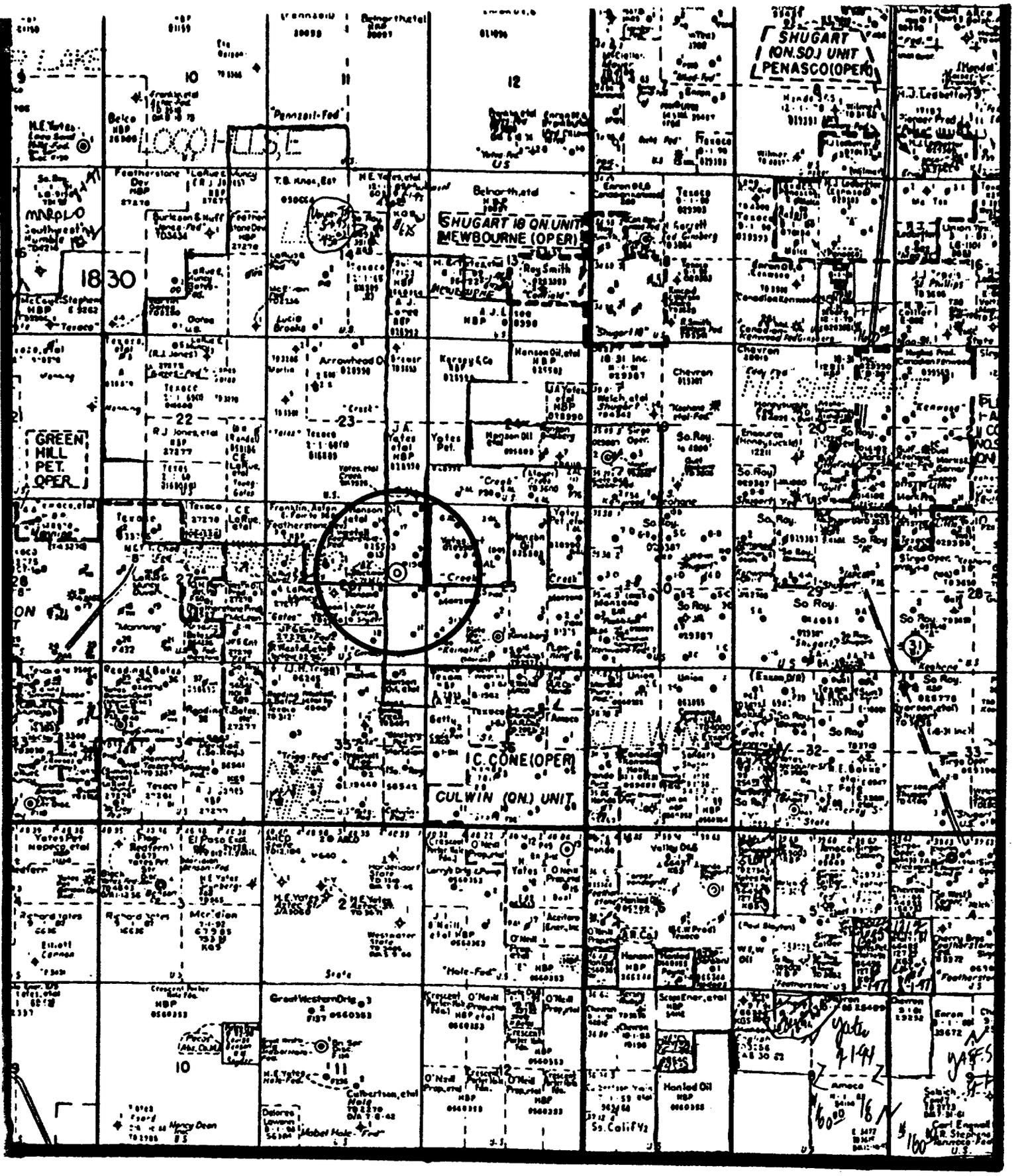
PROPOSED INJECTION WELL

sec 26-T18S-R30E
sw ne ne (990 FNL & 990 FEL)

EDDY COUNTY, NEW MEXICO

new well

ATTACHMENT B



HANSON OPERATING COMPANY, INC.

P. O. BOX 1515 ROSWELL, NEW MEXICO 88202-1515

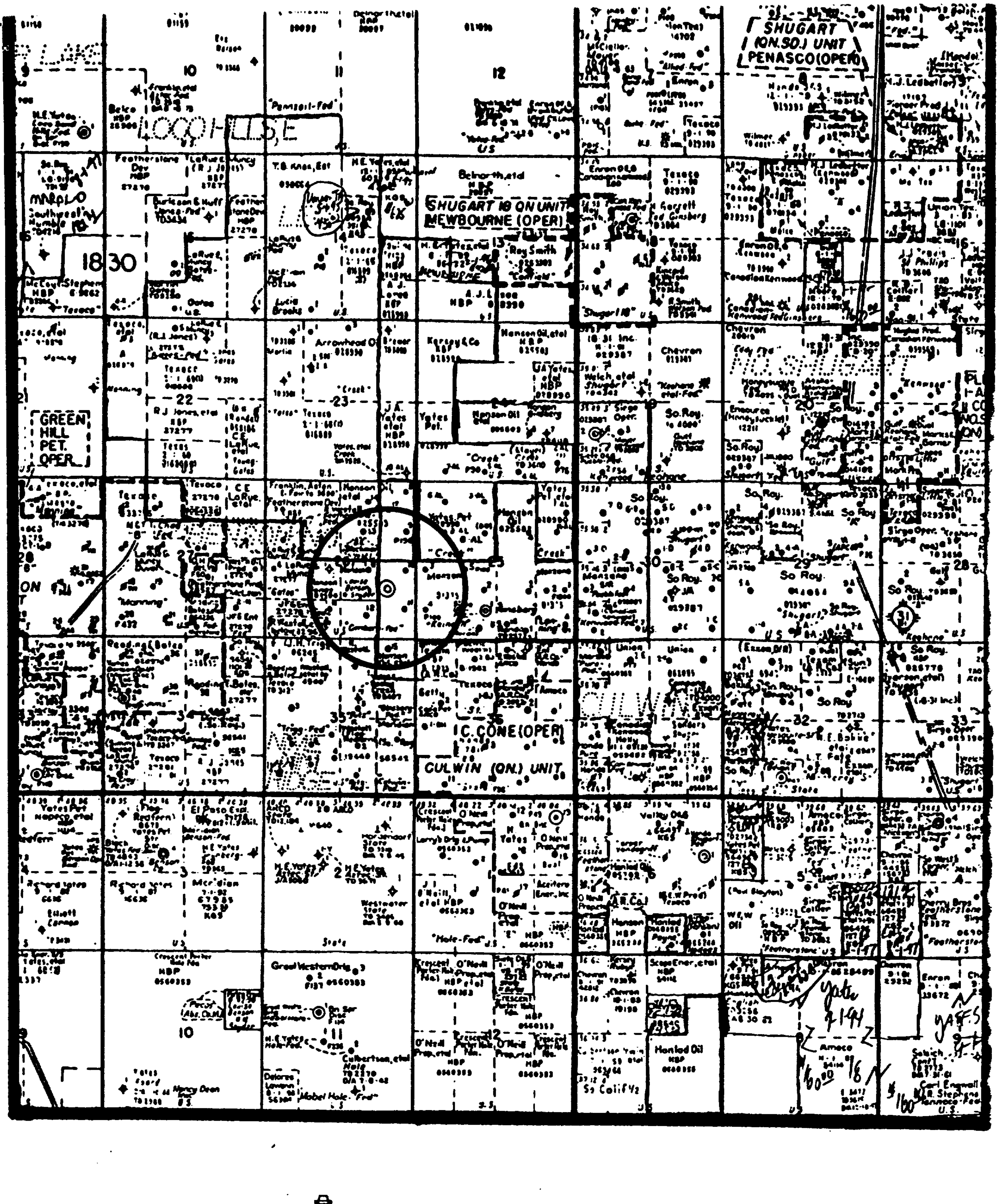
GINSBERG FEDERAL #18

PROPOSED INJECTION WELL

sec 26-T18S-R30E
sw se ne (2254' FNL & 1044 FEL)

EDDY COUNTY, NEW MEXICO

ATTACHMENT B
Page 4



HANSON OPERATING COMPANY, INC.

P.O. BOX 1515 ROSWELL, NEW MEXICO 88202-1515

GINSBERG FEDERAL #19

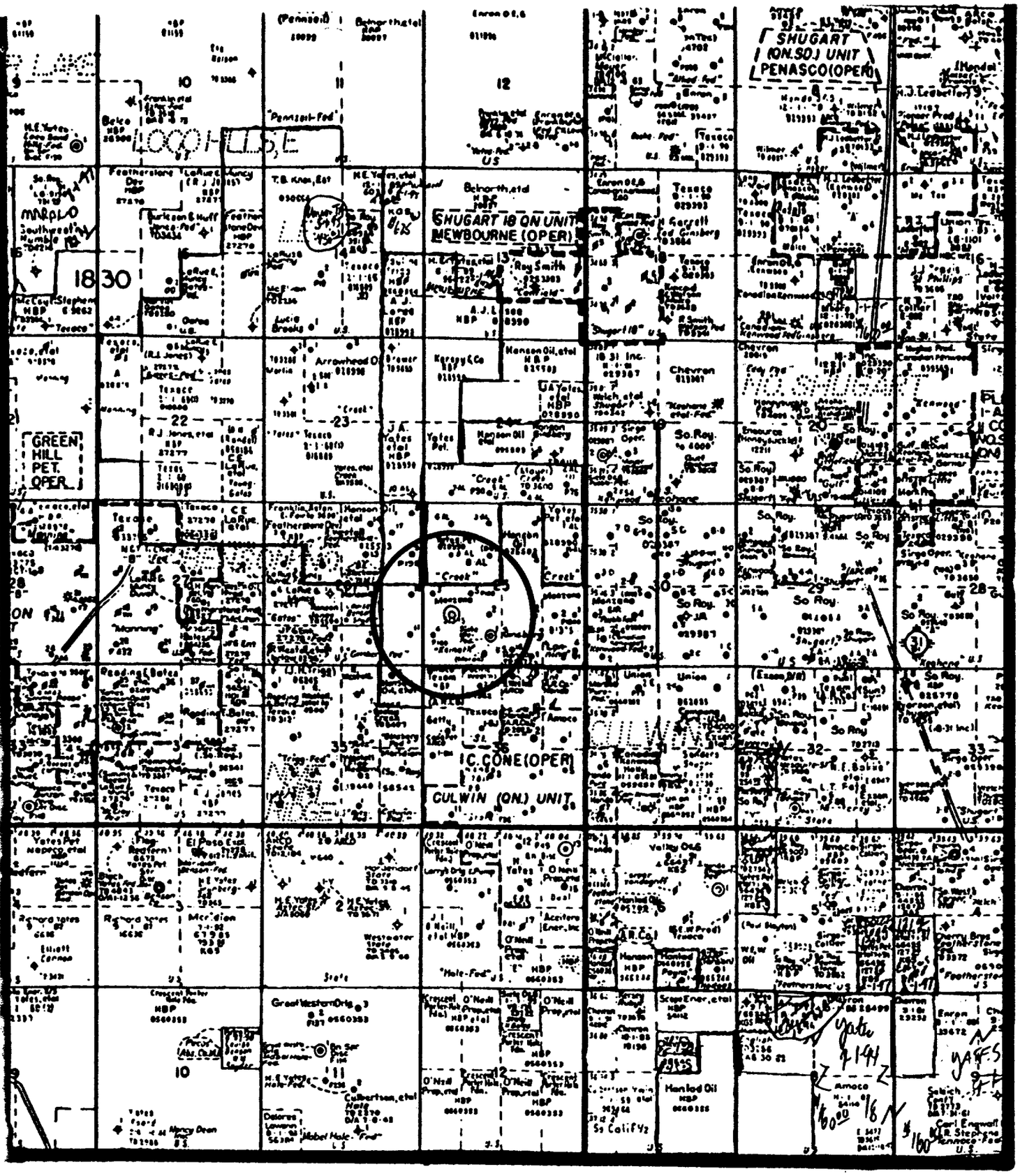
PROPOSED INJECTION WELL

sec 26-T18S-R30E

sw ne se (1591 FSL & 1048 FEL)

EDDY COUNTY, NEW MEXICO

ATTACHMENT B



HANSON OPERATING COMPANY, INC.

P. O. BOX 1515 ROSWELL, NEW MEXICO 88202-1515

KEINATH FEDERAL #6

PROPOSED INJECTION WELL

~~sec 25-T18S-R30E~~

nw sw (1631 FSL & 1012 FWL)

EDDY COUNTY, NEW MEXICO

ATTACHMENT B

Page 6

Hanson Operating Company, Inc.
Shugart Waterflood
Well Data Information
Attachment "C"
Page #1

Well Name	Operator	Type	Spud	Completion	Total Depth	Producing Zone	Perforations	Completion Information	Comments
Ginsberg Federal #1 O 25-18S-30E SW 1/4 SE 1/4	HOCI	Oil	09/16/61	10/18/61	2533'	7 RVRS	2490-2500'	8-5/8" 24# @866' w/50 sx. Squeezed w/add 50 sx. 5-1/2" 14# @2532' w/150 sx. (TOC 1500' calc). 2-3/8" tbg.	Cable Tools.
nsberg Federal #2 25-18S-30E NW 1/4 SE 1/4	HOCI	Oil	11/25/61	01/03/62	2530'	7 RVRS	2489-2492'	8-5/8" 24# @790' w/300 sx (circ). 5-1/2" 15.5# @2521 w/200sx. (TOC 1000' calc). 2-3/8" tbg.	Cable Tools.
Ginsberg Federal #3 B 25-18S-30E NW 1/4 NE 1/4	HOCI	Oil	04/10/69	05/24/69	3473'	Penrose	3364-3386' 3427-3437'	8-5/8" 28# @774' w/205 sx. 5-1/2" 15.5# @3473' w/260 sx (TOC 2000' calc). 2-3/8" tbg.	Cable Tools.
Ginsberg Federal #4 O 25-18S-30E SW 1/4 NE 1/4	HOCI	Oil	06/16/69	08/08/69	3701'	Q, Penrose, M-GRBG	3220-3230' 3344-3354' 3398-3404' 3458-3468' 3528-3532' 3610-3616' 3670-3675' 3705-3710'	8-5/8" 28# @755' w/255 sx (circ). 5-1/2" 15.5# @3716' w/250 sx. (TOC 2200' calc). 2-3/8" tbg.	Cable Tools. CIBP @3575'. Q-Penrose Production only.
Ginsberg Federal #16 O 25-18S-30E SW 1/4 SE 1/4	HOCI	Oil	11/21/84	12/12/84	3975'	7 RVRS, Q, Penrose, M-GRBG, SA	2318-2340' 2410-2424' 2470-2490' 3189-3204' 3312-3322' 3648-3652' 3660-3668' 3902-3937'	8-5/8" 24# @560' w/250 sx (circ). 5-1/2" 15.5# @3998' w/700 sx. (TOC 1775' calc). 3 stage. 2-3/8" tbg.	7 RVRS production only. CIBP @3160'.
Ginsberg Federal #15 A 26-18S-30E NE 1/4 NE 1/4	HOCI	Oil	11/29/79	02/14/80	3510'	Yates, 7 RVRS, Q, Penrose, M-GRBG	1935-2071' 2141-2187' 2243-2320' 3012-3018' 3156-3177' 3226-3233' 3426-3433' 3476-3479' 3494-3499' 3537-3554'	8-5/8" 24# @691' w/375 sx (circ). 5-1/2" 14# @3612' w/895 sx (circ). 2-3/8" tbg.	CIBP @3460'.

Hanson Operating Company, Inc.
Shugart Waterflood
Well Data Information
Attachment "C"
Page 2

Well Name	Operator	Type	Spud	Completion	Total Depth	Producing Zone	Perforations	Completion Information	Comme
Ginsberg Federal #14 B 26-18S-30E NW 1/4 NE 1/4	HOCI	Oil	06/15/72	04/05/72	3495'	Penrose M-GRBG	3109-3113' 3314-3318' 3376-3382'	12-3/4" 34# @716' w/600 sx (circ). 8-5/8" 24# @1730 w/50 sx. Pulled 1530'. Ran 5-1/2" 15.5 @3495' w/ 1000 sx (circ). 2-3/8" tbg.	Rotary.
'nsberg Federal #8 26-18S-30E NE 1/4 NE 1/4	HOCI	Oil	10/29/71	11/18/71	3550'	Penrose, M-GRBG	3187-3191' 3461-3465'	12-3/4" 49# @704' w/600 sx (circ). 8-5/8" 24# @1748' w/50 sx. Pulled 1508'. Ran 5-1/2" 15.5# @3545' w/ 1150 sx. (1" to surface). 2-3/8" tbg.	Rotary.
Ginsberg Federal #9 H 26-18S-30E SE 1/4 NE 1/4	HOCI	Oil	10/14/71	10/31/71	3859'	Penrose, M-GRBG	3166-3171' 3440-3444'	12-3/4" 49# @758' w/400 sx (circ). 8-5/8" 24# @1744' w/50 sx. Pulled 1468'. Ran 5-1/2" 15.5# @3859' w/ 1460 sx (circ). 2-3/8" tbg.	Rotary.
Ginsberg Federal #13 G 26-18S-30E SW 1/4 NE 1/4	HOCI	Oil	02/07/72	02/21/72	3515'	Penrose, M-GRBG	2035-2069' 3046-3065' 3107-3111' 3316-3320' 3387-3393' 3414-3418'	12-3/4" 34# @720' w/600 sx (circ). 8-5/8" 24# @1740' w/50 sx. Pulled 1400'. Ran 5-1/2" 14# @3515' w/ 1050 sx (circ). 2-3/8" tbg.	Rotary.
Louise Benson #1 J 26-18S-30E NW 1/4 SE 1/4	HOCI	Oil	01/08/72	01/15/72	3534'	Penrose, M-GRBG	3163-3167' 3446-3452'	8-5/8" 24# @715' w/300 sx (3 yds Ready Mix) 5-1/2" 15.5# @3534' w/350 sx. (TOC 1500' calc). 2-3/8" tbg.	Rotary.
Ginsberg Federal #10 I 26-18S-30E NE 1/4 SE 1/4	HOCI	Oil	11/10/71	11/19/71	3520'	Penrose, GRBG, M-GRBG	3111-3117' 3160-3164' 3234-3239' 3280-3290' 3301-3306' 3313-3318' 3322-3324' 3362-3369' 3442-3448'	8-5/8" 36# @718' w/300 sx (circ). 5-1/2" 15.5# @3520' w/350 sx. (TOC 1500 calc). 2-3/8" tbg.	Rotary.

Well Name	Operator	Type	Spud	Completion	Total Depth	Producing Zone	Perforations	Completion Information	Comments
Ginsberg Federal #11 P 26-18S-30E SE 1/4 SE 1/4	HOCI	Oil	11/17/71	12/02/71	3560'	Q, 7 RVRS, Penrose, GRBG, M-GRBG	2265-2290' 2342-2348' 3021-3030' 3136-3147' 3190-3194' 3251-3260' 3269-3278' 3302-3312' 3382-3390' 3489-3491' 3493-3497'	8-5/8" 32# @710' w/300 sx (circ). 5-1/2" 15.5# @3558' w/350 sx. (TOC 1500' calc). 2-3/8" tbg.	Rotary.
Ginsberg Federal #12 O 26-18S-30E SW 1/4 SE 1/4	HOCI	Oil	01/28/72	02/13/72	3580'	Penrose, M-GRBG	3191-3195' 3469-3475'	8-5/8" 24# @715' w/350 sx (circ). 5-1/2" 15.5# @3580' w/350 sx. (TOC 1500' calc). 2-3/8" tbg.	Rotary.
Lanning Federal #1 P 25-18S-30E SE 1/4 SE 1/4	HOCI	Oil	08/16/61	09/01/61	2564'	7 RVRS	2529-2539' 2545-2548'	8-5/8" 24# @788' w/50 sx . (TOC 450' calc). 5-1/2" 15.5# @2564' w/100 sx. (TOC 1650' calc). 2-3/8" tbg.	Cable Tools. Currently SI. August '92 Last production.
Lanning Federal #2 I 25-18S-30E NE 1/4 SE 1/4	HOCI	Oil	02/04/62	02/22/62	2547'	7 RVRS	2513-2523'	8-5/8" 24# @800' w/505 sx. (TOC 450' calc). 5-1/2" 15.5# @2547' w/100 sx. (TOC 1650' calc). 2-3/8" tbg.	Cable Tools.
~nning Federal #3 25-18S-30E NE 1/4 SE 1/4	HOCI	Oil	08/14/76	09/01/76	3800'	7 RVRS, Q, Penrose, M-GRBG,	2515-2534' 3108-3306' 3330-3406' 3504-3521' 3537-3553' 3601-3688' 3706-3716'	8-5/8" 24# @821' w/350 sx (circ). 5-1/2" 14# @3800' w/300 sx. (TOC 2250' calc). 2-3/8" tbg.	Rotary. CIBP @2624'. Producing f/7 R'
Lannings Federal #4 P 25-18S-30E SE 1/4 SE 1/4	HOCI	Oil	09/04/76	02/15/77	3800'	7 RVRS, Q, Penrose, M-GRBG,	2524-2544' 3226-3246' 3340-3386' 3510-3530' 3607-3686'	8-5/8" 20# @814' w/350 sx (circ). 5-1/2" 14# @3731' w/300 sx. 2-3/8" tbg. TOC	Rotary. Currently SI. CIBP @3150'. August '92 Last production.

Hanson Operating Company, Inc.
Shugart Waterflood
Well Data Information
Attachment "C"
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Well Name	Operator	Type	Spud	Completion	Total Depth	Producing Zone	Perforations	Completion Information	Comment
Pueblo Federal #1 M 30-18S-31E SW 1/4 SW 1/4	HOCI	Oil	08/16/88	11/02/88	6125'	Penrose M-GRBG	3543-3563' 3639-3648'	13-3/8" 56# @503' w/450 sx (circ). 8-5/8" 24# @1979' w/850 sx. Pmpd 300 sx f/surface. TOC (5 sx @surface). 5-1/2" 15.5# @6125' w/1470 sx. (DV tool). Tie back to 8-5/8" csg. CBL 1900'. Squeeze Bradenhead w/12 sx cem @2300 Psi. 2-3/8" tbg.	Rotary. Drld as a Dele Test. RBP @36
Keinath Federal #1 N 25-18S-30E SE 1/4 SW 1/4	HOCI re-entry:	Oil	11/09/59 04/03/61	12/23/59 P&A 04/30/61	3260' 2556'	7 RVRS	2484-2488' 2493-2500'	7" 23# @864' w/75 sx. (TOC 350' calc). 5-1/2" 15.5# @2556' w/100 sx (TOC 1600' calc). 2-3/8" tbg.	Rotary.
Keinath Federal #2 K 25-18S-30E NE 1/4 SW 1/4	HOCI	Oil	06/19/62	08/31/62	2520'	7 RVRS	2454-2457' 2463-2470'	8-5/8" 24# @751' w/100 sx. (TOC 250' calc). 5-1/2" 15.5# @2519' w/200sx. (TOC 750' calc). 2-3/8" tbg.	Rotary.
Keinath Federal #3 L 25-18S-30E NW 1/4 SW 1/4	HOCI	Oil	12/11/71	01/08/72	3530'	Penrose, M-GRBG	3177-3183' 3457-3467' 3484-3490'	8-5/8" 32# @710' w/300 sx (circ). 5-1/2" 15.5# & 17# @3500' w/350 sx. (TOC 500' calc). 2-3/8" tbg.	Rotary.
Keinath Federal #4 M 25-18S-30E SW 1/4 SW 1/4	HOCI	Oil	01/17/72	02/14/72	3558'	Penrose, M-GRBG	3194-3200' 3467-3477' 3489-3496'	8-5/8" 32# @716' w/350 sx (circ). 5-1/2" 15.5# & 17# @3558' w/450 sx. (TOC 500' calc). 2-3/8" tbg.	Rotary.
inath Federal #5 .. 25-18S-30E NE 1/4 SW 1/4	HOCI	Oil	12/07/72	02/15/73	3650'	Penrose, M-GRBG	3232-3234' 3262-3271' 3288-3294' 3394-3396' 3555-3559' 3574-3580'	8-5/8" 32# @823' w/200 sx. (TOC 50' calc). 5-1/2" 15.5# & 17# @3650' w/450 sx. (TOC 500' calc). 2-3/8" tbg.	Rotary.
Kenwood Federal #1 N 30-18S-31E SE 1/4 SW 1/4	HOCI	Oil	09/04/61	10/25/61 PTD:	3661' 2650'	7 RVRS	2570-2580'	8-5/8" 24# @820' w/50 sx. (TOC 500' calc). 5-1/2" 15.5 @2650' w/100 sx. Psi csg & split collar. 820' 5-1/2" csg pulled. Ran 820' 7" 20# csg w/100 sx. 2-3/8" tbg.	Cable Tools. Currently SI. August '92 la production.
Kenwood Federal #2 M 30-18S-31E SW 1/4 SW 1/4	HOCI	Oil	10/18/61	12/15/61	2604'	7 RVRS	2403-2530' 2572-2582'	8-5/8" 24# @809' w/50 sx. (TOC 500' calc). 5-1/2" 15.5# @2604' w/100 sx. (TOC 1700' calc). 2-3/8" tbg.	Cable Tools.

Hanson Operating Company, Inc.
Shugart Waterflood
Well Data Information
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Well Name	Operator	Type	Spud	Completion	Total Depth	Producing Zone	Perforations	Completion Information	Comments
Kenwood Federal #3 L 30-18S-31E NE 1/4 SW 1/4	HOCI	Oil	04/05/62	05/05/62	2542'	7 RVRS	2498-2510'	8-5/8" 24# @810' w/50 sx. (TOC 500' calc). 5-1/2" 14# @2542' w/200 sx. (TOC 1000' calc). 2-3/8" tbg.	Cable Tools. Currently SI. August '92 last production.
nwood Federal #4 30-18S-31E NE 1/4 SW 1/4	HOCI	Oil	05/25/62	06/30/62	2540'	7 RVRS	2485-2498' 2500-2506'	8-5/8" 24# @811'w/50 sx. (TOC 595' calc). 5-1/2" 14# @2540' w/200 sx. (TOC 1274' calc). 2-3/8" tbg.	02/01/80 Well was converted to WIW. Would not take water. Put back int production 02/04/80 Currently SI.
Kenwood Federal #5 K 30-18S-31E NE 1/4 SW 1/4	HOCI	WIW	12/29/64	02/15/65	3755'	Q, Penrose, M-GRBG	3379-3397' 3414-3427' 3442-3447' 3486',3542' 3497-3504' 3574-3582' 3609-3614'	8-5/8" 24# @787' w/50 sx. (TOC 550' calc). 5-1/2" 14# @3755' w/350 sx. (TOC 2500' calc). Pmpd 100 sx behind 5-1/2" @surface. 2-3/8" tbg.	Cable Tools. 02/10/65 P&A'd well Re-entered April '7 March 22, 1979 app. to inject water.
Kenwood Federal #6 M 30-18S-31E NW 1/4 SW 1/4	HOCI	Oil	12/26/79	02/10/80	2700'	7 RVRS	2386-2400' 2416-2432' 2474-2480' 2486',2490' 2504',2508' 2552-2556' 2560-2562' 2568' 2572-2574'	8-5/8" 20# @808' w/325 sx (circ). 5-1/2" 14# @2702' w/350 sx (CBL 1600'). 2-3/8" tbg.	Rotary.

Hanson Operating Company, Inc.
Shugart Waterflood
Well Data Information
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Well Name	Operator	Type	Spud	Completion	Total Depth	Producing Zone	Perforations	Completion Information	Commen
Creek AL #1 A 25-18S-30E	YPC	Oil	11/63	01/64	3789'	Penrose	3383-3456'	8-5/8" 24# J-55 @777' w/50 sx. 5-1/2" 14# J-55 @3544' w/100 sx. (TOC 3050' TS) 2-3/8" tbg	PBTD 3501'.
Creek AL #2 24-18S-30E	Len Mayer YPC	Oil Oil	05/61 03/64	08/61 03/64	3602' 3602'	Penrose	3417-3435'	8-5/8" 24# @748' w/50 sx. 4-1/2" 9.5# J-55 @3540' w/200 sx. (TOC 1814' calc). 2-3/8" tbg	D&A. OWWO.
Creek AL #3 C 25-18S-30E	YPC	Oil	07/69	08/69	3426'	Penrose	3302-3376'	8-5/8" 29# @770' w/100sx. 5-1/2" 14# J-55 @3426' w/200 sx. (TOC 2785' calc). 2-3/8" tbg	
Creek AL #4 O 24-18S-30E	YPC	Oil	08/69	10/69	3485	Penrose	3358-3384'	8-5/8" 24# J-55 @780' w/100sx. 5-1/2" 15# J-55 @3476' w/150 sx. (TOC 2995' calc). 2-3/8" tbg	
Creek AL #5 N 24-18S-30E	YPC	Oil	10/69	12/69	3422'	Penrose	3292-3364'	8-5/8" 24# @782' w/100 sx. 5-1/2" 15.5# J-55 @3422' w/150 sx. (TOC 2941' calc). 2-3/8" tbg.	
Creek AL #6 D 25-18S-30E	YPC	Oil	12/69 12/70	02/70 12/70	3286' 3578'	Penrose, M-GRBG	3172-3240' 3438-3578' (open hole)	8-5/8" 24# J-55 @719' w/200 sx. 5-1/2" 14# & 15.5# J-55 @3286' w/500 sx. (TOC 600' TS). 2-3/8" tbg.	Deepen (12/70
eek AL #7 24-18S-30E	YPC	Oil	02/70	04/70	3314'	Penrose	3189-3258'	8-5/8" 24# @729' w/200 sx. 5-1/2" 14# J-55 @3306' w/600 sx (circ). 2-3/8" tbg.	
Creek AL #8 F 25-18S-30E	YPC	Oil	04/70 07/72	06/70 08/72	3416' 3705'	Penrose, M-GRBG	3305-3378' 3580-3705' (open hole)	8-5/8" 20# @773' w/100 sx. 5-1/2" 14# J-55 @3416' w/200 sx. (TOC 2782' calc). 2-3/8" tbg.	Deepen (07/72

Hanson Operating Company, Inc.
Shugart Waterflood
Well Data Information
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Well Name	Operator	Type	Spud	Completion	Total Depth	Producing Zone	Perforations	Completion Information	Comments
Creek AL #9 E 25-18S-30E	YPC	Oil	06/70	09/70	3594'	Q, Penrose, M-GRBG	2944-2955' 3150-3221' 3420-3568' (open hole)	8-5/8" 20# @712' w/200 sx. 5-1/2" 14# @3316' w/600 sx (circ). 2-3/8" tbg.	PBTD 3568'.
Creek AL #10 23-18S-30E	YPC	Oil	11/72		3519			10-3/4" 30# J-55 @732' w/250 sx. 8-5/8" 24# J-55 @1750' w/250 sx.	TA.
Creek AL #11 H 25-18S-30E	YPC	Oil	08/72	12/72	3728'	Penrose M-GRBG	3351.5-3538' 3621.5-3626'	8-5/8" 24# J-55 @735' w/100 sx. 5-1/2 15.5# J-55 @3728' w/150 sx. (TOC 3252' calc). 2-3/8" tbg.	
Ritz #4 35-18S-30E 890' FNL & 2110' FEL	Ray Westall	Oil	01/01/85	05/09/85	3988'	Q, Penrose	3314-3342	8-5/8" 24# @521' w/300 sx (circ). 5-1/2" 17# @3971' w/113 sx. (TOC 2300' calc). 2-3/8" tbg.	
Arco #1 B 36-18S-30E 330' FNL & 2310' FEL	Ray Westall	Oil	02/24/84	03/04/84	2560'	7 RVRS	2504-2514'	8-5/8" 23# @831'. 4-1/2" 9.5# 2560' w/150 sx. (TOC 2000' calc). 2-3/8" tbg.	
Arco Hondo #1 A 36-18S-30E 330' FEL & 330' FNL	Bearing Service & Supply	Oil	07/14/77	11/03/77	3410'	Yates, 7 RVRS	2472-2478' 2542-2550'	8-5/8" 20# @787 w/350 sx (circ). 5-1/2" 17# @3410' w/825 sx (circ). 2-3/8" tbg.	
Federal E #2 C 31-18S-31E 1/4 NW 1/4	SDX Resources Inc.	Oil	09/29/60	11/03/60	3650'	Q	3594-3604'	8-5/8" 24# @816' w/150 sx. (TOC 300' calc). 5-1/2" 15#, 17# & 20# @3649' w/250 sx. (TOC 1200' calc). 2-3/8" tbg.	
Federal N #1 N 26-18S-30E 990' FSL & 2310' FWL	FAF	Oil	03/29/72	05/01/72	3600'	Q	3214-3218'	8-5/8" 20# @720' w/350 sx (circ to surface). 5-1/2" 14# @3690' w/300 sx. (TOC 1000'calc) 2-3/8" tbg.	

HANSON OPERATING COMPANY, INC.

United Bank Plaza, Suite 1200
Post Office Box 1515
Roswell, New Mexico 88202-1515

Phone: (505) 622-7330

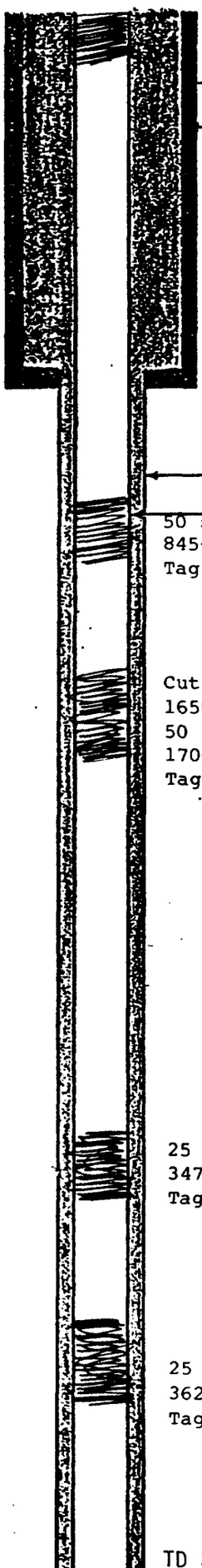
WELL BORE SKETCH

OPERATOR/LEASE/WELL Marbob Energy Corporation Pure Federal #1

LOCATION 330' FNL & 844' FWL Sec.31-T.18S-R.31E Eddy County, New Mexico

FIELD/POOL Shugart /

PLUG BACK DEPTH _____ KB _____ ELEVATION 3568' DF



50' plug
at surface

Hole Size 11"

SURFACE CASING:
Size 8-5/8" Weight 24# Grade _____
Set at 800' with 50 Sacks Cement
Circulate _____ Sacks to Surface
Remarks: _____

Hole Size 7-7/8"

PRODUCTION CASING:
Size 4-1/2" Weight 10.5 Grade _____
Set at 3577' with 265 Sacks Cement
Cement Top: Calculated _____ Temperature Survey _____
Remarks: _____

50 sx plug
845-745'
Tag at 724'

Cut & pulled
1650' 4-1/2" csg.
50 sx plug
1700-1480'
Tagged at 1480'

TUBING:
Size _____ Weight _____ Grade _____
Number of Joints _____ Set at _____
Packer Set at _____
Bottom Arrangement: _____

25 sx plug
3476-3300'
Tagged at 3300'

RODS:
Size _____ Number _____
Gas Anchor Set at _____
Pump Set at _____
Arrangement: _____

25 sx plug
3622-3476'
Tagged at 3476'

Plugged January 17, 1984

TD 3597'

HANSON OPERATING CO. PANY, INC.

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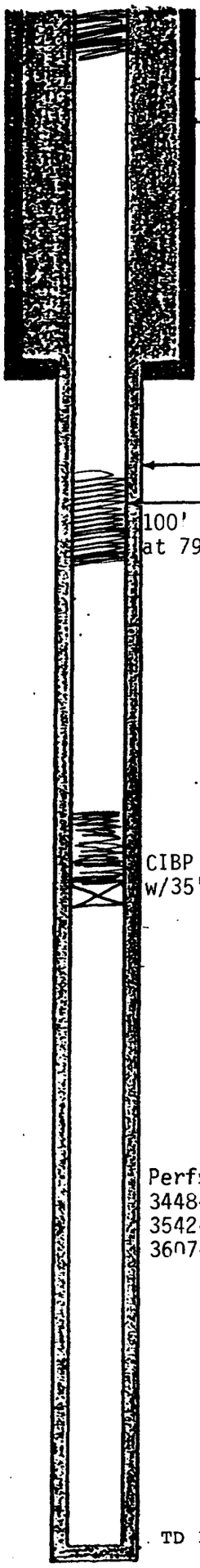
WELL BORE SKETCH

OPERATOR/LEASE/WELL Getty Oil State BJ Well #2

LOCATION 660' FNL & 1980' FWL Sec.36-T.18S-R.30E Eddy County, New Mexico

FIELD/POOL _____ / _____

PLUG BACK DEPTH _____ KB _____ ELEVATION 3534' DF



Hole Size 12¼"

SURFACE CASING:
Size 8-5/8" Weight 24# Grade _____
Set at 780' with 40 Sacks Cement
Circulate _____ Sacks to Surface
Remarks: _____

Hole Size 7-7/8"

PRODUCTION CASING:
Size 5-1/2" Weight 15.5# Grade _____
Set at 3699' with _____ Sacks Cement
Cement Top: Calculated _____ Temperature Survey _____
Remarks: 55 sx to surface

TUBING:
Size _____ Weight _____ Grade _____
Number of Joints _____ Set at _____
Packer Set at _____
Bottom Arrangement: _____

RODS:
Size _____ Number _____
Gas Anchor Set at _____
Pump Set at _____
Arrangement: _____

Plugged November 20, 1975

HANSON OPERATING CO. .'ANY, INC.

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Phone: (505) 622-7330

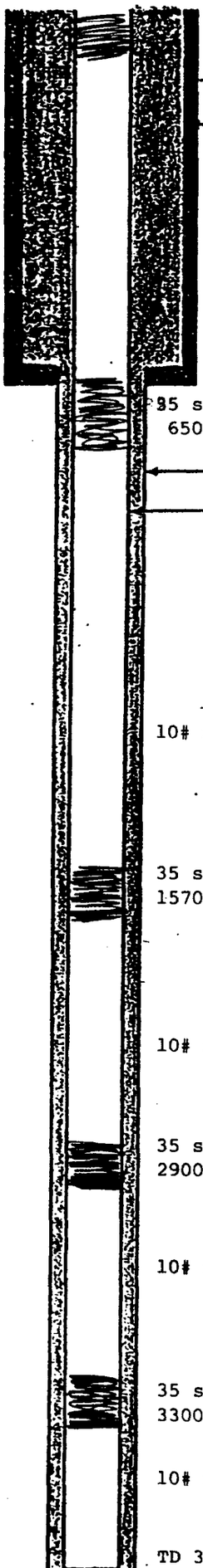
WELL BORE SKETCH

OPERATOR/LEASE/WELL Hanson Operating Company, Inc. Jones Federal #1

LOCATION 2310' FSL & 2310' FWL Sec.26-T.18S-R.30E, Eddy County New Mexico

FIELD/POOL Shugart /7 RVRS, Queen Penrose GRBG

PLUG BACK DEPTH _____ KB _____ ELEVATION 3467.8'



Hole Size 12¼"

SURFACE CASING:
Size 8-5/8" Weight 24# Grade J-55
Set at 708' with 200 Sacks Cement
Circulate _____ Sacks to Surface
Remarks: _____

Hole Size 7-7/8"

PRODUCTION CASING:
Size _____ Weight _____ Grade _____
Set at _____ with _____ Sacks Cement
Cement Top: Calculated _____ Temperature Survey _____
Remarks: _____

TUBING:
Size _____ Weight _____ Grade _____
Number of Joints _____ Set at _____
Packer Set at _____
Bottom Arrangement: _____

RODS:
Size _____ Number _____
Gas Anchor Set at _____
Pump Set at _____
Arrangement: _____

Plugged on April 30, 1972
Csg was never set.

ATTACHMENT C
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HANSON OPERATING CO. ANY, INC.
United Bank Plaza, Suite 1200
Post Office Box 1515
Roswell, New Mexico 88202-1515
Phone: (505) 622-7330

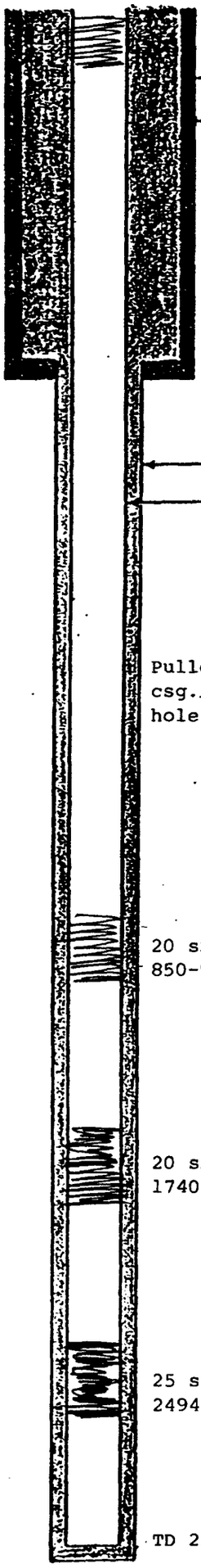
WELL BORE SKETCH

OPERATOR/LEASE/WELL Hondo Oil & Gas Company State "RD" #9

LOCATION NW¼ NE¼ B Sec.36-T.18S-R.30E Eddy County, New Mexico

FIELD/POOL Culwin / Queen

PLUG BACK DEPTH _____ KB _____ ELEVATION _____



Hole Size 12¼"

SURFACE CASING:
Size 8-5/8" Weight _____ Grade _____
Set at 880' with _____ Sacks Cement
Circulate _____ Sacks to Surface
Remarks: _____

Hole Size _____

PRODUCTION CASING:
Size _____ Weight _____ Grade _____
Set at _____ with _____ Sacks Cement
Cement Top: Calculated _____ Temperature Survey _____
Remarks: _____

Pulled 630' of 8-5/8" csg. Left 250' in hole.

TUBING:
Size _____ Weight _____ Grade _____
Number of Joints _____ Set at _____
Packer Set at _____
Bottom Arrangement: _____

RODS:
Size _____ Number _____
Gas Anchor Set at _____
Pump Set at _____
Arrangement: _____

Plugged November 18, 1961
Csg was not set and well was never perf.

SCALE PROGRAM FOR MIXING 2 WATERS

Hanson Oil Company
Pueblo Fed #1 Penrose, Middle Grayburg
Ginsberg Fed #9 Penrose, Middle Grayburg

TEMPERATURE(F)= 60.0

ION	CONCENTRATION (MG/L) WATER NO. 1	WATER NO. 2
SODIUM	49462.	46060.
CALCIUM	6315.	4650.
MAGNESIUM	2063.	1768.
CHLORIDE	93000.	84000.
BICARBONATE	336.	244.
CARBONATE	0.	0.
SULFATE	400.	400.
PH	7.50	7.00
SPECIFIC GRAVITY	1.1077	1.0979
RESISTIVITY	0.06	0.07
IONIC STRENGTH	2.8838	2.5748
TDS	151576.	137122.

TYPE OF SCALE	SOLUBILITY (PTB)	SCALE INDEX	SCALE (PTB)	SCALING TENDENCY
100.0 % WATER NO. 1	0.0 % WATER NO. 2			
CALCIUM SULFATE	1082.	-0.67	-831.	NONE
CALCIUM CARBONATE	13.	1.18	180.	MODERATE
90.0 % WATER NO. 1	10.0 % WATER NO. 2			
CALCIUM SULFATE	1105.	-0.68	-854.	NONE
CALCIUM CARBONATE	17.	1.06	171.	MODERATE
80.0 % WATER NO. 1	20.0 % WATER NO. 2			
CALCIUM SULFATE	1129.	-0.69	-878.	NONE
CALCIUM CARBONATE	21.	0.96	162.	MODERATE
70.0 % WATER NO. 1	30.0 % WATER NO. 2			
CALCIUM SULFATE	1154.	-0.71	-903.	NONE
CALCIUM CARBONATE	25.	0.86	152.	MODERATE

NOTE: PTB = POUNDS PER THOUSAND BARRELS

Hanson Oil Company
Pueblo Fed #1 Penrose, Middle Grayburg
Ginsberg Fed #9 Penrose, Middle Grayburg

TYPE OF SCALE	SOLUBILITY (PTB)	SCALE INDEX	SCALE (PTB)	SCALING TENDENCY
60.0 % WATER NO. 1	40.0 % WATER NO. 2			
CALCIUM SULFATE	1181.	-0.72	-930.	NONE
CALCIUM CARBONATE	30.	0.77	142.	MODERATE
50.0 % WATER NO. 1	50.0 % WATER NO. 2			
CALCIUM SULFATE	1207.	-0.73	-956.	NONE
CALCIUM CARBONATE	35.	0.69	131.	MODERATE
40.0 % WATER NO. 1	60.0 % WATER NO. 2			
CALCIUM SULFATE	1234.	-0.74	-983.	NONE
CALCIUM CARBONATE	41.	0.61	120.	MODERATE
30.0 % WATER NO. 1	70.0 % WATER NO. 2			
CALCIUM SULFATE	1263.	-0.75	-1012.	NONE
CALCIUM CARBONATE	47.	0.53	109.	MODERATE
20.0 % WATER NO. 1	80.0 % WATER NO. 2			
CALCIUM SULFATE	1292.	-0.77	-1041.	NONE
CALCIUM CARBONATE	54.	0.45	96.	SLIGHT
10.0 % WATER NO. 1	90.0 % WATER NO. 2			
CALCIUM SULFATE	1323.	-0.78	-1072.	NONE
CALCIUM CARBONATE	62.	0.38	84.	SLIGHT
0.0 % WATER NO. 1	100.0 % WATER NO. 2			
CALCIUM SULFATE	1355.	-0.80	-1104.	NONE
CALCIUM CARBONATE	70.	0.31	70.	SLIGHT

NOTE: PTB = POUNDS PER THOUSAND BARRELS

SCALE PROGRAM FOR MIXING 2 WATERS

Hanson Oil Company
Pueblo Fed #1 Penrose, Middle Grayburg
Ginsberg Fed #16 Seven Rivers

TEMPERATURE(F)= 60.0

ION	CONCENTRATION (MG/L) WATER NO. 1	WATER NO. 2
SODIUM	49462.	47401.
CALCIUM	6315.	4025.
MAGNESIUM	2063.	1095.
CHLORIDE	93000.	83000.
BICARBONATE	336.	244.
CARBONATE	0.	0.
SULFATE	400.	400.
PH	7.50	7.20
SPECIFIC GRAVITY	1.1077	1.0968
RESISTIVITY	0.06	0.07
IONIC STRENGTH	2.8838	2.5033
TDS	151576.	136165.

TYPE OF SCALE	SOLUBILITY (PTB)	SCALE INDEX	SCALE (PTB)	SCALING TENDENCY
100.0 % WATER NO. 1	0.0 % WATER NO. 2			
CALCIUM SULFATE	1082.	-0.67	-831.	NONE
CALCIUM CARBONATE	13.	1.18	180.	MODERATE
90.0 % WATER NO. 1	10.0 % WATER NO. 2			
CALCIUM SULFATE	1114.	-0.69	-863.	NONE
CALCIUM CARBONATE	15.	1.10	172.	MODERATE
80.0 % WATER NO. 1	20.0 % WATER NO. 2			
CALCIUM SULFATE	1148.	-0.70	-897.	NONE
CALCIUM CARBONATE	18.	1.02	164.	MODERATE
70.0 % WATER NO. 1	30.0 % WATER NO. 2			
CALCIUM SULFATE	1185.	-0.72	-934.	NONE
CALCIUM CARBONATE	21.	0.94	156.	MODERATE

NOTE: PTB = POUNDS PER THOUSAND BARRELS

Hanson Oil Company
Pueblo Fed #1 Penrose, Middle Grayburg
Ginsberg Fed #16 Seven Rivers

TYPE OF SCALE	SOLUBILITY (PTB)	SCALE INDEX	SCALE (PTB)	SCALING TENDENCY
60.0 % WATER NO. 1	40.0 % WATER NO. 2			
CALCIUM SULFATE	1222.	-0.74	-971.	NONE
CALCIUM CARBONATE	24.	0.87	148.	MODERATE
50.0 % WATER NO. 1	50.0 % WATER NO. 2			
CALCIUM SULFATE	1261.	-0.75	-1010.	NONE
CALCIUM CARBONATE	28.	0.79	139.	MODERATE
40.0 % WATER NO. 1	60.0 % WATER NO. 2			
CALCIUM SULFATE	1302.	-0.77	-1051.	NONE
CALCIUM CARBONATE	32.	0.72	129.	MODERATE
30.0 % WATER NO. 1	70.0 % WATER NO. 2			
CALCIUM SULFATE	1346.	-0.79	-1095.	NONE
CALCIUM CARBONATE	36.	0.64	120.	MODERATE
20.0 % WATER NO. 1	80.0 % WATER NO. 2			
CALCIUM SULFATE	1393.	-0.81	-1142.	NONE
CALCIUM CARBONATE	42.	0.57	109.	MODERATE
10.0 % WATER NO. 1	90.0 % WATER NO. 2			
CALCIUM SULFATE	1442.	-0.83	-1191.	NONE
CALCIUM CARBONATE	48.	0.50	98.	SLIGHT
0.0 % WATER NO. 1	100.0 % WATER NO. 2			
CALCIUM SULFATE	1495.	-0.86	-1244.	NONE
CALCIUM CARBONATE	54.	0.42	86.	SLIGHT

NOTE: PTB = POUNDS PER THOUSAND BARRELS

SCALE PROGRAM FOR MIXING 2 WATERS

Hanson Oil Company
Pueblo Fed #1 Penrose, Middle Grayburg
Kingwood Fed #6 Seven Rivers

TEMPERATURE(F)= 60.0

ION	CONCENTRATION (MG/L) WATER NO. 1	WATER NO. 2
SODIUM	49462.	86007.
CALCIUM	6315.	4997.
MAGNESIUM	2063.	3115.
CHLORIDE	93000.	150000.
BICARBONATE	336.	274.
CARBONATE	0.	0.
SULFATE	400.	600.
PH	7.50	7.20
SPECIFIC GRAVITY	1.1077	1.1643
RESISTIVITY	0.06	0.05
IONIC STRENGTH	2.8838	4.5074
TDS	151576.	244993.

TYPE OF SCALE	SOLUBILITY (PTB)	SCALE INDEX	SCALE (PTB)	SCALING TENDENCY
100.0 % WATER NO. 1	0.0 % WATER NO. 2			
CALCIUM SULFATE	1082.	-0.67	-831.	NONE
CALCIUM CARBONATE	13.	1.18	180.	MODERATE
90.0 % WATER NO. 1	10.0 % WATER NO. 2			
CALCIUM SULFATE	1105.	-0.66	-841.	NONE
CALCIUM CARBONATE	13.	1.17	176.	MODERATE
80.0 % WATER NO. 1	20.0 % WATER NO. 2			
CALCIUM SULFATE	1124.	-0.65	-848.	NONE
CALCIUM CARBONATE	13.	1.17	173.	MODERATE
70.0 % WATER NO. 1	30.0 % WATER NO. 2			
CALCIUM SULFATE	1139.	-0.64	-850.	NONE
CALCIUM CARBONATE	13.	1.18	170.	MODERATE

NOTE: PTB = POUNDS PER THOUSAND BARRELS

Hanson Oil Company
Pueblo Fed #1 Penrose, Middle Grayburg
Kingwood Fed #6 Seven Rivers

TYPE OF SCALE	SOLUBILITY (PTB)	SCALE INDEX	SCALE (PTB)	SCALING TENDENCY
60.0 % WATER NO. 1	40.0 % WATER NO. 2			
CALCIUM SULFATE	1152.	-0.62	-851.	NONE
CALCIUM CARBONATE	12.	1.18	166.	MODERATE
50.0 % WATER NO. 1	50.0 % WATER NO. 2			
CALCIUM SULFATE	1160.	-0.61	-847.	NONE
CALCIUM CARBONATE	12.	1.19	163.	MODERATE
40.0 % WATER NO. 1	60.0 % WATER NO. 2			
CALCIUM SULFATE	1166.	-0.59	-840.	NONE
CALCIUM CARBONATE	11.	1.21	161.	MODERATE
30.0 % WATER NO. 1	70.0 % WATER NO. 2			
CALCIUM SULFATE	1169.	-0.58	-831.	NONE
CALCIUM CARBONATE	*** UPPER IONIC STRENGTH LIMIT IS 4.0 ***			
20.0 % WATER NO. 1	80.0 % WATER NO. 2			
CALCIUM SULFATE	1169.	-0.56	-818.	NONE
CALCIUM CARBONATE	*** UPPER IONIC STRENGTH LIMIT IS 4.0 ***			
10.0 % WATER NO. 1	90.0 % WATER NO. 2			
CALCIUM SULFATE	1167.	-0.55	-803.	NONE
CALCIUM CARBONATE	*** UPPER IONIC STRENGTH LIMIT IS 4.0 ***			
0.0 % WATER NO. 1	100.0 % WATER NO. 2			
CALCIUM SULFATE	1162.	-0.53	-786.	NONE
CALCIUM CARBONATE	*** UPPER IONIC STRENGTH LIMIT IS 4.0 ***			

NOTE: PTB = POUNDS PER THOUSAND BARRELS

ALLIBURTON DIVISION LABORATO

HALLIBURTON SERVICES

ARTESIA DISTRICT

LABORATORY REPORT

No. W66, W67, & W68-93

TO Hanson Operating

P. O. Box 1515

Roswell, NM 88201

Date February 15, 1993

Submitted by _____ Date Rec. _____

Well No. _____ Depth _____ Formation _____

Field _____ County _____ Source _____

	Pueblo Fed. #1	Kingwood Fed. #6	Benson Fed. #1
Resistivity	0.063 @ 70°	0.053 @ 70°	
Specific Gravity ..	1.1077 @ 70°	1.1643 @ 70°	
pH	7.5	7.2	
Calcium	6,315	4,997	
Magnesium	2,063	3,115	
Chlorides	93,000	150,000	
Sulfates	400	600	
Bicarbonates	336	274	
Soluble Iron	0	25	
- - - - - - - - - -			All Oil
- - - - - - - - - -			
- - - - - - - - - -			

Remarks:

E D Jacobson

Respectfully submitted

Analyst: Eric Jacobson - Operations Engineer

HALLIBURTON SERVICES

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HALLIBURTON DIVISION LABORATC

HALLIBURTON SERVICES

ARTESIA DISTRICT

LABORATORY REPORT No. W69, W70, & W71-93

TO Hanson Operating

P. O. Box 1515

Roswell, NM 88201

Date February 15, 1993

Submitted by _____ **Date Rec.** _____

Well No. _____ **Depth** _____ **Formation** _____

Field _____ **County** _____ **Source** _____

	Ginsberg Fed. #9	Ginsberg Fed. #16	Ginsberg Fed. #1
Resistivity	0.066 @ 70°	0.067 @ 70°	
Specific Gravity ..	1.0979 @ 70°	1.0968 @ 70°	
pH	7.0	8.0	
Calcium	4,650	4,025	
Magnesium	1,768	1,095	
Chlorides	84,000	83,000	
Sulfates	400	400	
Bicarbonates	244	244	
Soluble Iron	3	0	
			All Oil

Remarks:

Respectfully submitted

Analyst: Eric Jacobson - Operations Engineer

HALLIBURTON SERVICES

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SCALE PROGRAM FOR MIXING 2 WATERS

ANSON OPERATING(WAWA)
~~REEK"AL" "AA"~~ City of Carlsbad
JN BARREL
INSBERG #1

EMPERATURE(F)= 75.0

ON	CONCENTRATION (MG/L) WATER NO. 1	WATER NO. 2
ODIUM	187.	518.
ALCIUM	120.	10980.
AGNESIUM	19.	23680.
HLORIDE	426.	88000.
CARBONATE	195.	305.
RBONATE	0.	0.
ULFATE	25.	1500.
H	7.20	6.90
PECIFIC GRAVITY	1.0000	1.1000
ESISTIVITY	-1.00	0.06
ONIC STRENGTH	0.0198	3.7822
DS	973.	124983.

YPE OF SCALE	SOLUBILITY (PTB)	SCALE INDEX	SCALE (PTB)	SCALING TENDENCY
00.0 % WATER NO. 1	0.0 % WATER NO. 2			
ALCIUM SULFATE	675.	-2.30	-659.	NONE
ALCIUM CARBONATE	94.	0.09	11.	SLIGHT
90.0 % WATER NO. 1	10.0 % WATER NO. 2			
ALCIUM SULFATE	1122.	-1.21	-1014.	NONE
ALCIUM CARBONATE	103.	0.07	16.	SLIGHT
80.0 % WATER NO. 1	20.0 % WATER NO. 2			
ALCIUM SULFATE	1212.	-0.89	-1011.	NONE
ALCIUM CARBONATE	106.	0.07	18.	SLIGHT
70.0 % WATER NO. 1	30.0 % WATER NO. 2			
ALCIUM SULFATE	1208.	-0.69	-914.	NONE
ALCIUM CARBONATE	95.	0.14	36.	SLIGHT

OTE: PTB = POUNDS PER THOUSAND BARRELS

ILLEGIBLE

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ANSON OPERATING(WAWA)
~~REEK"AL" "AA"~~ City of Carlsbad
UN BARREL
INSBERG #1

YPE OF SCALE	SOLUBILITY (PTB)	SCALE INDEX	SCALE (PTB)	SCALING TENDENCY
60.0 % WATER NO. 1	40.0 % WATER NO. 2			
ALCIUM SULFATE	1166.	-0.53	-780.	NONE
ALCIUM CARBONATE	78.	0.25	59.	SLIGHT
50.0 % WATER NO. 1	50.0 % WATER NO. 2			
ALCIUM SULFATE	1098.	-0.39	-619.	NONE
ALCIUM CARBONATE	59.	0.39	85.	SLIGHT
40.0 % WATER NO. 1	60.0 % WATER NO. 2			
ALCIUM SULFATE	1019.	-0.27	-448.	NONE
ALCIUM CARBONATE	43.	0.55	107.	MODERATE
30.0 % WATER NO. 1	70.0 % WATER NO. 2			
ALCIUM SULFATE	931.	-0.16	-267.	NONE
ALCIUM CARBONATE	30.	0.72	126.	MODERATE
20.0 % WATER NO. 1	80.0 % WATER NO. 2			
ALCIUM SULFATE	841.	-0.05	-85.	NONE
ALCIUM CARBONATE	21.	0.90	142.	MODERATE
10.0 % WATER NO. 1	90.0 % WATER NO. 2			
ALCIUM SULFATE	750.	0.06	99.	SLIGHT
ALCIUM CARBONATE	14.	1.08	154.	MODERATE
0.0 % WATER NO. 1	100.0 % WATER NO. 2			
ALCIUM SULFATE	662.	0.16	279.	STRONG
ALCIUM CARBONATE	9.	1.29	166.	MODERATE

OTE: PTB = POUNDS PER THOUSAND BARRELS

ILLEGIBLE

SCALE PROGRAM FOR MIXING 2 WATERS

ANSON OPERATING(WAWA)
~~REEK"AL" "AA"~~ City of Carlsbad
UN BARREL
INSBERG #2

EMPERATURE(F)= 75.0

ON	CONCENTRATION (MG/L) WATER NO. 1	WATER NO. 2
ODIUM	187.	17918.
ALCIUM	120.	6100.
AGNESIUM	19.	26344.
HLORIDE	426.	114000.
CARBONATE	195.	397.
ARBONATE	0.	0.
ULFATE	25.	1400.
H	7.20	6.90
PECIFIC GRAVITY	1.0000	1.1280
ESISTIVITY	-1.00	0.06
ONIC STRENGTH	0.0198	4.5019
OS	973.	166159.

YPE OF SCALE	SOLUBILITY (PTB)	SCALE INDEX	SCALE (PTB)	SCALING TENDENCY
00.0 % WATER NO. 1	0.0 % WATER NO. 2			
ALCIUM SULFATE	675.	-2.30	-659.	NONE
ALCIUM CARBONATE	94.	0.09	11.	SLIGHT
90.0 % WATER NO. 1	10.0 % WATER NO. 2			
ALCIUM SULFATE	1477.	-1.52	-1375.	NONE
ALCIUM CARBONATE	181.	-0.20	-58.	NONE
80.0 % WATER NO. 1	20.0 % WATER NO. 2			
ALCIUM SULFATE	1743.	-1.22	-1554.	NONE
ALCIUM CARBONATE	194.	-0.18	-59.	NONE
70.0 % WATER NO. 1	30.0 % WATER NO. 2			
ALCIUM SULFATE	1833.	-1.01	-1559.	NONE
ALCIUM CARBONATE	169.	-0.07	-22.	NONE

OTE: PTB = POUNDS PER THOUSAND BARRELS

ILLEGIBLE

ANSON OPERATING(WAWA)
~~REEK"AL" "AA"~~ City of Carlsbad
UN BARREL
INSBERG #2

YPE OF SCALE	SOLUBILITY (PTB)	SCALE INDEX	SCALE (PTB)	SCALING TENDENCY
60.0 % WATER NO. 1	40.0 % WATER NO. 2			
ALCIUM SULFATE	1832.	-0.85	-1471.	NONE
ALCIUM CARBONATE	125.	0.11	33.	SLIGHT
50.0 % WATER NO. 1	50.0 % WATER NO. 2			
ALCIUM SULFATE	1767.	-0.70	-1320.	NONE
ALCIUM CARBONATE	87.	0.30	82.	SLIGHT
40.0 % WATER NO. 1	60.0 % WATER NO. 2			
ALCIUM SULFATE	1657.	-0.57	-1124.	NONE
ALCIUM CARBONATE	58.	0.51	124.	MODERATE
30.0 % WATER NO. 1	70.0 % WATER NO. 2			
ALCIUM SULFATE	1518.	-0.45	-898.	NONE
ALCIUM CARBONATE	37.	0.73	156.	MODERATE
20.0 % WATER NO. 1	80.0 % WATER NO. 2			
ALCIUM SULFATE	1361.	-0.32	-655.	NONE
ALCIUM CARBONATE	24.	0.95	181.	MODERATE
10.0 % WATER NO. 1	90.0 % WATER NO. 2			
ALCIUM SULFATE	1197.	-0.20	-404.	NONE
ALCIUM CARBONATE	*** UPPER IONIC STRENGTH LIMIT IS 4.0 ***			
0.0 % WATER NO. 1	100.0 % WATER NO. 2			
ALCIUM SULFATE	1033.	-0.08	-154.	NONE
ALCIUM CARBONATE	*** UPPER IONIC STRENGTH LIMIT IS 4.0 ***			

OTE: PTB = POUNDS PER THOUSAND BARRELS

ILLEGIBLE

SCALE PROGRAM FOR MIXING 2 WATERS

ANSON OPERATING(WAWA)
~~REEK"AL" "AA"~~ Cdy of Carlsbad
JN BARREL
INSBERG ~~#16~~ 11

EMPERATURE(F)= 75.0

ON	CONCENTRATION (MG/L) WATER NO. 1	WATER NO. 2
ODIUM	187.	44827.
ALCIUM	120.	6954.
AGNESIUM	19.	1998.
HLORIDE	426.	86000.
/CARBONATE	195.	427.
ARBONATE	0.	0.
ULFATE	25.	1400.
H	7.20	7.10
PECIFIC GRAVITY	1.0000	1.0990
ESISTIVITY	-1.00	0.06
ONIC STRENGTH	0.0198	2.7324
DS	973.	141606.

YPE OF SCALE	SOLUBILITY (PTB)	SCALE INDEX	SCALE (PTB)	SCALING TENDENCY
00.0 % WATER NO. 1	0.0 % WATER NO. 2			
ALCIUM SULFATE	675.	-2.30	-659.	NONE
ALCIUM CARBONATE	94.	0.09	11.	SLIGHT
90.0 % WATER NO. 1	10.0 % WATER NO. 2			
ALCIUM SULFATE	1117.	-1.30	-1015.	NONE
ALCIUM CARBONATE	106.	0.08	19.	SLIGHT
80.0 % WATER NO. 1	20.0 % WATER NO. 2			
ALCIUM SULFATE	1268.	-1.00	-1080.	NONE
ALCIUM CARBONATE	113.	0.10	25.	SLIGHT
70.0 % WATER NO. 1	30.0 % WATER NO. 2			
ALCIUM SULFATE	1327.	-0.81	-1053.	NONE
ALCIUM CARBONATE	108.	0.16	44.	SLIGHT

OTE: PTB = POUNDS PER THOUSAND BARRELS

ILLEGIBLE

NSON OPERATING(WAWA)
~~EEK"AL" "AA"~~ City of Caesboo
N BARREL
NSBERG #~~EG~~ 11

TYPE OF SCALE	SOLUBILITY (PTB)	SCALE INDEX	SCALE (PTB)	SCALING TENDENCY
60.0 % WATER NO. 1	40.0 % WATER NO. 2			
ALCIUM SULFATE	1337.	-0.66	-976.	NONE
ALCIUM CARBONATE	96.	0.25	69.	SLIGHT
50.0 % WATER NO. 1	50.0 % WATER NO. 2			
ALCIUM SULFATE	1321.	-0.54	-874.	NONE
ALCIUM CARBONATE	83.	0.35	96.	SLIGHT
40.0 % WATER NO. 1	60.0 % WATER NO. 2			
ALCIUM SULFATE	1285.	-0.43	-752.	NONE
ALCIUM CARBONATE	67.	0.47	125.	MODERATE
30.0 % WATER NO. 1	70.0 % WATER NO. 2			
ALCIUM SULFATE	1237.	-0.34	-617.	NONE
ALCIUM CARBONATE	53.	0.60	152.	MODERATE
20.0 % WATER NO. 1	80.0 % WATER NO. 2			
ALCIUM SULFATE	1179.	-0.25	-473.	NONE
ALCIUM CARBONATE	41.	0.74	177.	MODERATE
10.0 % WATER NO. 1	90.0 % WATER NO. 2			
ALCIUM SULFATE	1115.	-0.16	-323.	NONE
ALCIUM CARBONATE	32.	0.88	200.	MODERATE
0.0 % WATER NO. 1	100.0 % WATER NO. 2			
ALCIUM SULFATE	1047.	-0.08	-168.	NONE
ALCIUM CARBONATE	24.	1.03	221.	MODERATE

TE: PTB = POUNDS PER THOUSAND BARRELS

ILLEGIBLE

SCALE PROGRAM FOR MIXING 2 WATERS

ANSON OPERATING(WAWA)
~~REEK"AL" "AA"~~ City of Carrsbad
JN BARREL
INSBERG #16

EMPERATURE(F)= 75.0

ON	CONCENTRATION (MG/L) WATER NO. 1	WATER NO. 2
ODIUM	187.	19834.
ALCIUM	120.	4148.
AGNESIUM	19.	1155.
HLORIDE	426.	40000.
ICARBONATE	195.	336.
ARBONATE	0.	0.
ULFATE	25.	1500.
H	7.20	7.60
PECIFIC GRAVITY	1.0000	1.0400
ESISTIVITY	-1.00	0.12
ONIC STRENGTH	0.0198	1.3317
DS	973.	66973.

YPE OF SCALE	SOLUBILITY (PTB)	SCALE INDEX	SCALE (PTB)	SCALING TENDENCY
00.0 % WATER NO. 1	0.0 % WATER NO. 2			
ALCIUM SULFATE	675.	-2.30	-659.	NONE
ALCIUM CARBONATE	94.	0.09	11.	SLIGHT
90.0 % WATER NO. 1	10.0 % WATER NO. 2			
ALCIUM SULFATE	938.	-1.25	-829.	NONE
ALCIUM CARBONATE	79.	0.23	42.	SLIGHT
80.0 % WATER NO. 1	20.0 % WATER NO. 2			
ALCIUM SULFATE	1071.	-0.94	-870.	NONE
ALCIUM CARBONATE	79.	0.24	49.	SLIGHT
70.0 % WATER NO. 1	30.0 % WATER NO. 2			
ALCIUM SULFATE	1150.	-0.75	-857.	NONE
ALCIUM CARBONATE	75.	0.28	61.	SLIGHT

OTE: PTB = POUNDS PER THOUSAND BARRELS

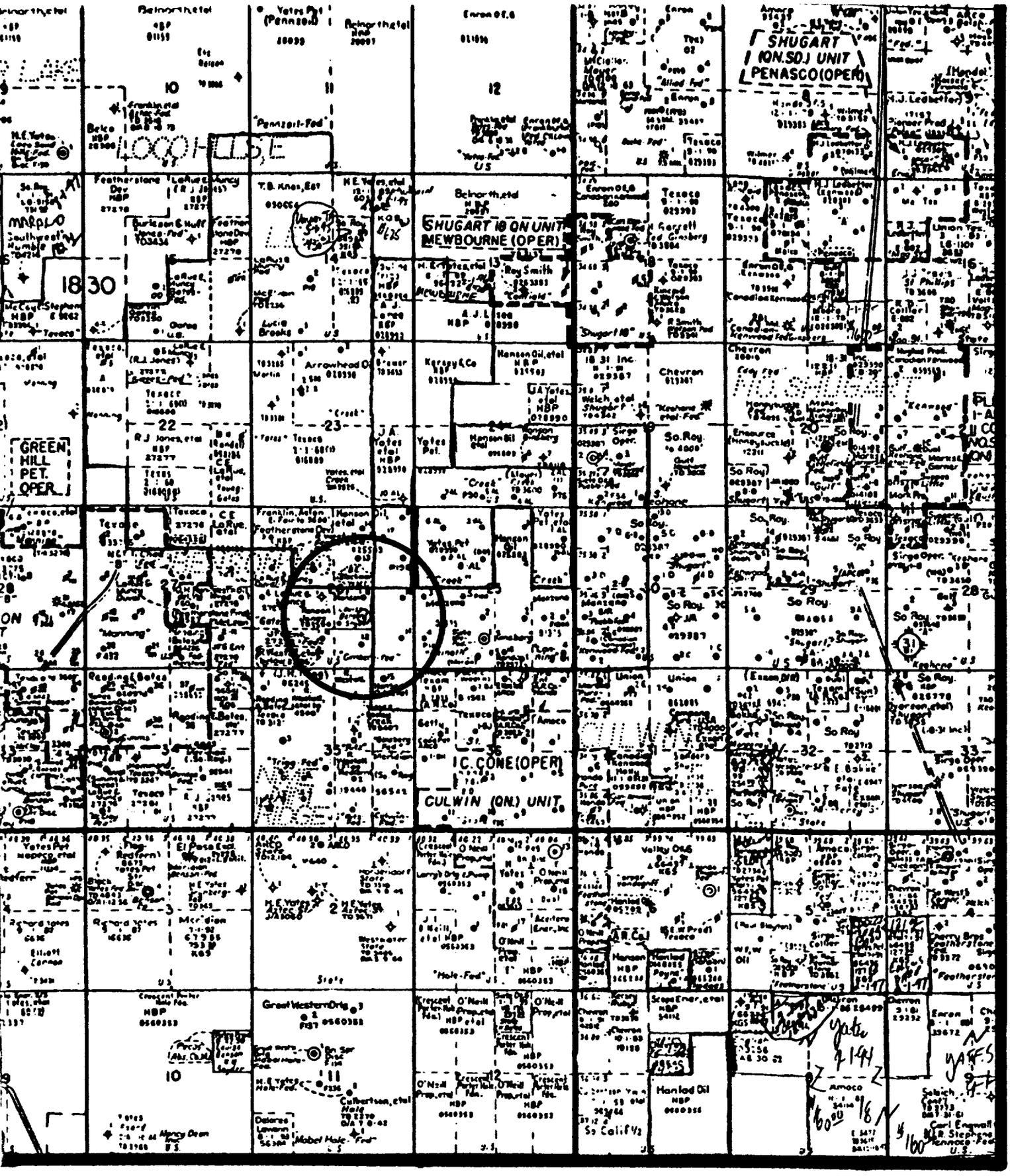
ILLEGIBLE

HANSON OPERATING(WAWA)
~~CREEK"AL" "AA"~~ City of Carlsbad
GUN BARREL
GINSBERG #16

TYPE OF SCALE	SOLUBILITY (PTB)	SCALE INDEX	SCALE (PTB)	SCALING TENDENCY
60.0 % WATER NO. 1	40.0 % WATER NO. 2			
CALCIUM SULFATE	1199.	-0.61	-813.	NONE
CALCIUM CARBONATE	70.	0.34	75.	SLIGHT
50.0 % WATER NO. 1	50.0 % WATER NO. 2			
CALCIUM SULFATE	1229.	-0.50	-750.	NONE
CALCIUM CARBONATE	63.	0.41	90.	SLIGHT
40.0 % WATER NO. 1	60.0 % WATER NO. 2			
CALCIUM SULFATE	1245.	-0.41	-674.	NONE
CALCIUM CARBONATE	55.	0.49	106.	MODERATE
30.0 % WATER NO. 1	70.0 % WATER NO. 2			
CALCIUM SULFATE	1251.	-0.33	-588.	NONE
CALCIUM CARBONATE	47.	0.58	122.	MODERATE
20.0 % WATER NO. 1	80.0 % WATER NO. 2			
CALCIUM SULFATE	1248.	-0.26	-492.	NONE
CALCIUM CARBONATE	39.	0.68	138.	MODERATE
10.0 % WATER NO. 1	90.0 % WATER NO. 2			
CALCIUM SULFATE	1241.	-0.19	-392.	NONE
CALCIUM CARBONATE	32.	0.79	153.	MODERATE
0.0 % WATER NO. 1	100.0 % WATER NO. 2			
CALCIUM SULFATE	1228.	-0.13	-286.	NONE
CALCIUM CARBONATE	25.	0.90	168.	MODERATE

NOTE: PTB = POUNDS PER THOUSAND BARRELS

ILLEGIBLE



SNYDER RANCH WATER WELL

se nw se sec 26-T18s-R30e

ATTACHMENT E

Page 1

'ALLIBURTON DIVISION LABORATO

HALLIBURTON SERVICES

ARTESIA DISTRICT

LABORATORY REPORT No. W79-93

TO Hanson Operating

P. O. Box 1515

Roswell, NM 88201

Date February 18, 1993

Submitted by Date Rec. February 18, 1993

Well No. Snyder Ranch Depth Formation

Field County Source

Resistivity	2.4 @ 70°		
Specific Gravity ..	1.0026 @ 70°		
pH	8.0		
Calcium	1,735		
Magnesium	421		
Chlorides	1,600		
Sulfates	600		
Bicarbonates	274		
Soluble Iron	0		

Remarks:

Respectfully submitted

Analyst: Eric Jacobson - Operations Engineer

HALLIBURTON SERVICES

ATTACHMENT F
Page 1

ATTACHMENT G

HANSON OPERATING COMPANY, INC.

P.O. BOX 1515 ROSWELL, NEW MEXICO 88202-1515 PHONE AC 505-622-7330

February 19, 1993

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Meridian Oil, Inc.
Post Office Box 51810
Midland, Texas 79710-1810

Re: BENSON SHUGART WATERFLOOD UNIT
EDDY COUNTY, NEW MEXICO

Gentlemen:

In accordance with the requirements of the New Mexico Oil Conservation Division Form C-108 (Application for Authorization to Inject), please find attached a copy for Hanson Operating Company, Inc. Benson Shugart Waterflood Unit located in Sections 25, 26 and 35 of T. 18 S., R. 30 E., and Section 30, T. 18 S., R. 31 E., Eddy County, New Mexico.

If you have any questions, please feel free to contact me at 505/622-7330.

Thank you.

Yours very truly,

HANSON OPERATING COMPANY, INC.

David Sweeney
Drilling & Production Superintendent

DS:jmc
Attachment

HANSON OPERATING COMPANY, INC.

P.O. BOX 1515 ROSWELL, NEW MEXICO 88202-1515 PHONE AC 505-622-7330

February 19, 1993

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Ray Westall
Post Office Box 4
Loco Hills, New Mexico 88255

Re: BENSON SHUGART WATERFLOOD UNIT
EDDY COUNTY, NEW MEXICO

Gentlemen:

In accordance with the requirements of the New Mexico Oil Conservation Division Form C-108 (Application for Authorization to Inject), please find attached a copy for Hanson Operating Company, Inc. Benson Shugart Waterflood Unit located in Sections 25, 26 and 35 of T. 18 S., R. 30 E., and Section 30, T. 18 S., R. 31 E., Eddy County, New Mexico.

If you have any questions, please feel free to contact me at 505/622-7330.

Thank you.

Yours very truly,

HANSON OPERATING COMPANY, INC.

David Sweeney
Drilling & Production Superintendent

DS:jmc
Attachment

5C

HANSON OPERATING COMPANY, INC.

P.O. BOX 1515 ROSWELL, NEW MEXICO 88202-1515 PHONE AC 505-622-7330

February 19, 1993

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Yates Petroleum Corporation
105 South Fourth Street-
Artesia, New Mexico 88210

Re: BENSON SHUGART WATERFLOOD UNIT
EDDY COUNTY, NEW MEXICO

Gentlemen:

In accordance with the requirements of the New Mexico Oil Conservation Division Form C-108 (Application for Authorization to Inject), please find attached a copy for Hanson Operating Company, Inc. Benson Shugart Waterflood Unit located in Sections 25, 26 and 35 of T. 18 S., R. 30 E., and Section 30, T. 18 S., R. 31 E., Eddy County, New Mexico.

If you have any questions, please feel free to contact me at 505/622-7330.

Thank you.

Yours very truly,

HANSON OPERATING COMPANY, INC.

David Sweeney

David Sweeney
Drilling & Production Superintendent

DS:jmc
Attachment

5-1

HANSON OPERATING COMPANY, INC.

P.O. BOX 1515 ROSWELL, NEW MEXICO 88202-1515 PHONE AC 505-622-7330

February 19, 1993

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

JFG Enterprises
Post Office Box 100
Artesia, New Mexico 88210

Re: BENSON SHUGART WATERFLOOD UNIT
EDDY COUNTY, NEW MEXICO

Gentlemen:

In accordance with the requirements of the New Mexico Oil Conservation Division Form C-108 (Application for Authorization to Inject), please find attached a copy for Hanson Operating Company, Inc. Benson Shugart Waterflood Unit located in Sections 25, 26 and 35 of T. 18 S., R. 30 E., and Section 30, T. 18 S., R. 31 E., Eddy County, New Mexico.

If you have any questions, please feel free to contact me at 505/622-7330.

Thank you.

Yours very truly,

HANSON OPERATING COMPANY, INC.

David Sweeney
Drilling & Production Superintendent

DS:jmc
Attachment

52

HANSON OPERATING COMPANY, INC.

P.O. BOX 1515 ROSWELL, NEW MEXICO 88202-1515 PHONE AC 505-622-7330

February 19, 1993

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Merit Energy Company
12221 Merit Drive, Suite 500
Dallas, Texas 75251

Re: BENSON SHUGART WATERFLOOD UNIT
EDDY COUNTY, NEW MEXICO

Gentlemen:

In accordance with the requirements of the New Mexico Oil Conservation Division Form C-108 (Application for Authorization to Inject), please find attached a copy for Hanson Operating Company, Inc. Benson Shugart Waterflood Unit located in Sections 25, 26 and 35 of T. 18 S., R. 30 E., and Section 30, T. 18 S., R. 31 E., Eddy County, New Mexico.

If you have any questions, please feel free to contact me at 505/622-7330.

Thank you.

Yours very truly,

HANSON OPERATING COMPANY, INC.

David Sweeney
Drilling & Production Superintendent

DS:jmc
Attachment

HANSON OPERATING COMPANY, INC.

P.O. BOX 1515 ROSWELL, NEW MEXICO 88202-1515 PHONE AC 505-622-7330

February 19, 1993

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

B & A Operating Co.
Post Office Box 136
Lovington, New Mexico 88260

Re: BENSON SHUGART WATERFLOOD UNIT
EDDY COUNTY, NEW MEXICO

Gentlemen:

In accordance with the requirements of the New Mexico Oil Conservation Division Form C-108 (Application for Authorization to Inject), please find attached a copy for Hanson Operating Company, Inc. Benson Shugart Waterflood Unit located in Sections 25, 26 and 35 of T. 18 S., R. 30 E., and Section 30, T. 18 S., R. 31 E., Eddy County, New Mexico.

If you have any questions, please feel free to contact me at 505/622-7330.

Thank you.

Yours very truly,

HANSON OPERATING COMPANY, INC.

David Sweeney

David Sweeney
Drilling & Production Superintendent

DS:jmc
Attachment

54

HANSON OPERATING COMPANY, INC.

P.O. BOX 1515 ROSWELL, NEW MEXICO 88202-1515 PHONE AC 505-622-7330

February 19, 1993

CERTIFIED MAIL
RETTURN RECEIPT REQUESTED

Ozark Exploration
Suite 1525
Two Turtle Creek Village
Dallas, Texas 75219

Re: BENSON SHUGART WATERFLOOD UNIT
EDDY COUNTY, NEW MEXICO

Gentlemen:

In accordance with the requirements of the New Mexico Oil Conservation Division Form C-108 (Application for Authorization to Inject), please find attached a copy for Hanson Operating Company, Inc. Benson Shugart Waterflood Unit located in Sections 25, 26 and 35 of T. 18 S., R. 30 E., and Section 30, T. 18 S., R. 31 E., Eddy County, New Mexico.

If you have any questions, please feel free to contact me at 505/622-7330.

Thank you.

Yours very truly,

HANSON OPERATING COMPANY, INC.

David Sweeney

David Sweeney
Drilling & Production Superintendent

DS:jmc
Attachment

HANSON OPERATING COMPANY, INC.

P.O. BOX 1515 ROSWELL, NEW MEXICO 88202-1515 PHONE AC 505-622-7330

February 19, 1993

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

SDX Resources, Inc.
Post Office Box 5061
Midland, Texas 79704

Re: BENSON SHUGART WATERFLOOD UNIT
EDDY COUNTY, NEW MEXICO

Gentlemen:

In accordance with the requirements of the New Mexico Oil Conservation Division Form C-108 (Application for Authorization to Inject), please find attached a copy for Hanson Operating Company, Inc. Benson Shugart Waterflood Unit located in Sections 25, 26 and 35 of T. 18 S., R. 30 E., and Section 30, T. 18 S., R. 31 E., Eddy County, New Mexico.

If you have any questions, please feel free to contact me at 505/622-7330.

Thank you.

Yours very truly,

HANSON OPERATING COMPANY, INC.

David Sweeney

David Sweeney
Drilling & Production Superintendent

DS:jmc
Attachment

HANSON OPERATING COMPANY, INC.

P.O. BOX 1515 ROSWELL, NEW MEXICO 88202-1515 PHONE AC 505-622-7330

February 19, 1993

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Trigg Family Trust
Post Office Box 520
Roswell, New Mexico 88202-0520

Re: BENSON SHUGART WATERFLOOD UNIT
EDDY COUNTY, NEW MEXICO

Gentlemen:

In accordance with the requirements of the New Mexico Oil Conservation Division Form C-108 (Application for Authorization to Inject), please find attached a copy for Hanson Operating Company, Inc. Benson Shugart Waterflood Unit located in Sections 25, 26 and 35 of T. 18 S., R. 30 E., and Section 30, T. 18 S., R. 31 E., Eddy County, New Mexico.

If you have any questions, please feel free to contact me at 505/622-7330.

Thank you.

Yours very truly,

HANSON OPERATING COMPANY, INC.

David Sweeney

David Sweeney
Drilling & Production Superintendent

DS:jmc
Attachment

HANSON OPERATING COMPANY, INC.

P.O. BOX 1515 ROSWELL, NEW MEXICO 88202-1515 PHONE AC 505-622-7330

February 19, 1993

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Manzano Oil Corporation
Post Office Box 2107
Roswell, New Mexico 88202-2107

Re: BENSON SHUGART WATERFLOOD UNIT
EDDY COUNTY, NEW MEXICO

Gentlemen:

In accordance with the requirements of the New Mexico Oil Conservation Division Form C-108 (Application for Authorization to Inject), please find attached a copy for Hanson Operating Company, Inc. Benson Shugart Waterflood Unit located in Sections 25, 26 and 35 of T. 18 S., R. 30 E., and Section 30, T. 18 S., R. 31 E., Eddy County, New Mexico.

If you have any questions, please feel free to contact me at 505/622-7330.

Thank you.

Yours very truly,

HANSON OPERATING COMPANY, INC.

David Sweeney
Drilling & Production Superintendent

DS:jmc
Attachment

5J-

HANSON OPERATING COMPANY, INC.

P.O. BOX 1515 ROSWELL, NEW MEXICO 88202-1515 PHONE AC 505-622-7330

February 19, 1993

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

C. E. LaRue
B. N. Muncy, Jr.
Post Office Box 196
Artesia, New Mexico 88210

Re: BENSON SHUGART WATERFLOOD UNIT
EDDY COUNTY, NEW MEXICO

Gentlemen:

In accordance with the requirements of the New Mexico Oil Conservation Division Form C-108 (Application for Authorization to Inject), please find attached a copy for Hanson Operating Company, Inc. Benson Shugart Waterflood Unit located in Sections 25, 26 and 35 of T. 18 S., R. 30 E., and Section 30, T. 18 S., R. 31 E., Eddy County, New Mexico.

If you have any questions, please feel free to contact me at 505/622-7330.

Thank you.

Yours very truly,

HANSON OPERATING COMPANY, INC.

David Sweeney
Drilling & Production Superintendent

DS:jmc
Attachment

59

HANSON OPERATING COMPANY, INC.

P.O. BOX 1515 ROSWELL, NEW MEXICO 88202-1515 PHONE AC 505-622-7330

February 19, 1993

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mack Energy Corp.
Post Office Box 276
Artesia, New Mexico 88210

Re: BENSON SHUGART WATERFLOOD UNIT
EDDY COUNTY, NEW MEXICO

Gentlemen:

In accordance with the requirements of the New Mexico Oil Conservation Division Form C-108 (Application for Authorization to Inject), please find attached a copy for Hanson Operating Company, Inc. Benson Shugart Waterflood Unit located in Sections 25, 26 and 35 of T. 18 S., R. 30 E., and Section 30, T. 18 S., R. 31 E., Eddy County, New Mexico.

If you have any questions, please feel free to contact me at 505/622-7330.

Thank you.

Yours very truly,

HANSON OPERATING COMPANY, INC.

David Sweeney

David Sweeney
Drilling & Production Superintendent

DS:jmc
Attachment

6-8

HANSON OPERATING COMPANY, INC.

P.O. BOX 1515 ROSWELL, NEW MEXICO 88202-1515 PHONE AC 505-622-7330

February 19, 1993

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Xeric Oil & Gas Company
Post Office Box 51311
Midland, Texas 79710

Re: BENSON SHUGART WATERFLOOD UNIT
EDDY COUNTY, NEW MEXICO

Gentlemen:

In accordance with the requirements of the New Mexico Oil Conservation Division Form C-108 (Application for Authorization to Inject), please find attached a copy for Hanson Operating Company, Inc. Benson Shugart Waterflood Unit located in Sections 25, 26 and 35 of T. 18 S., R. 30 E., and Section 30, T. 18 S., R. 31 E., Eddy County, New Mexico.

If you have any questions, please feel free to contact me at 505/622-7330.

Thank you.

Yours very truly,

HANSON OPERATING COMPANY, INC.

David Sweeney
Drilling & Production Superintendent

DS:jmc
Attachment

HANSON OPERATING COMPANY, INC.

P.O. BOX 1515 ROSWELL, NEW MEXICO 88202-1515 PHONE AC 505-622-7330

February 19, 1993

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Siete Oil & Gas Corporation
Post Office Box 2523
Roswell, New Mexico 88202-2523

Re: BENSON SHUGART WATERFLOOD UNIT
EDDY COUNTY, NEW MEXICO

Gentlemen:

In accordance with the requirements of the New Mexico Oil Conservation Division Form C-108 (Application for Authorization to Inject), please find attached a copy for Hanson Operating Company, Inc. Benson Shugart Waterflood Unit located in Sections 25, 26 and 35 of T. 18 S., R. 30 E., and Section 30, T. 18 S., R. 31 E., Eddy County, New Mexico.

If you have any questions, please feel free to contact me at 505/622-7330.

Thank you.

Yours very truly,

HANSON OPERATING COMPANY, INC.

David Sweeney
Drilling & Production Superintendent

DS:jmc
Attachment

6-2

Affidavit of Publication

No. 14224

STATE OF NEW MEXICO,

County of Eddy:

Gary D. Scott being duly sworn, says: That he is the Publisher of The Artesia Daily Press, a daily newspaper of general circulation, published in English at Artesia, said county and state, and that the hereto attached Legal Notice

was published in a regular and entire issue of the said Artesia Daily Press, a daily newspaper duly qualified for that purpose within the meaning of Chapter 167 of the 1937 Session Laws of the state of New Mexico for 1 consecutive days weeks on the same day as follows:

First Publication February 17, 1993

Second Publication

Third Publication

Fourth Publication

Gary D. Scott

Subscribed and sworn to before me this 17th day of February 1993

Barbara Ann Bass

Notary Public, Eddy County, New Mexico

My Commission expires September 23, 1996

Copy of Publication

LEGAL NOTICE

Hanson Operating Company, Inc., United Bank Plaza, Suite 1200, 400 North Pennsylvania Avenue, Roswell, New Mexico 88201, has filed form C-108 (Application for Authorization to Inject) with the New Mexico Oil Conservation Division seeking administrative approval for six injection wells. The proposed wells, the Ginsberg Federal #17 located 990'FNL & 990'FEL Section 26, T. 18 S., R. 30 E.; the Ute Federal #1 located 930'FSL & 2310'FWL Section 25, T. 18 S., R. 30 E.; the Ginsberg Federal #18 located 2254'FNL & 1044'FEL Section 26, T. 18 S., R. 30 E.; the Ginsberg Federal #19 located 1591'FSL & 1048'FEL Section 26, T. 18 S., R. 30 E.; the Keinath Federal #6 located 1631'FSL & 1012'FWL Section 25, T. 18 S., R. 30 E.; and the Pueblo Federal #1 located 930'FSL & 660'FWL Section 30, T. 18 S., R. 31 E. of Eddy County, New Mexico, will be used for pressure maintenance. Produced waters from the Penrose, Middle Grayburg will be injected into the 7 Rivers, Penrose, Middle Grayburg formation at a depth of 2430'-2500'; 3165'-3175'; and 3440'-3450' respectively with a maximum pressure of 1600 psi and a maximum rate of an estimated 400 BWPD.

All interested parties opposing the aforementioned must file objections or requests for a hearing with the Oil Conservation Division, P.O. Box 2088, Santa Fe, NM 87501, within 15 days. Additional information can be obtained by contacting David Sweeney at (505) 622-7330.

Published in the Artesia Daily Press, Artesia, NM February 17, 1993.

Legal 14224