

**OIL CONSERVATION DIVISION**

September 19, 1995

Yates Petroleum Corporation  
105 South Fourth Street  
Artesia, NM 88210

Attention: Mr. Robert S. Fant

**CERTIFICATION OF ENHANCED OIL RECOVERY PROJECT  
FOR RECOVERED OIL TAX RATE**

The New Mexico Oil Conservation Division hereby certifies that the following Enhanced Oil Recovery Project has been approved by the Division as a secondary project, pursuant to the provisions of the *New Mexico Enhanced Oil Recovery Act* (Laws of 1992, Chapter 38). In order to qualify for the *Recovered Oil Tax Rate*, you must apply for certification of positive production response within five years from the date of this certification. Only production from that portion of the project area identified herein which is actually developed for enhanced recovery will qualify for the reduced tax rate.

If operation of this project is terminated for any reason, the operator of the project must notify this Division and the Secretary of the Taxation and Revenue Department not later than the thirtieth day after termination.

NAME OF PROJECT: West Loco Hills G4S Unit

OCD ORDER NO. R-2178, as amended

OPERATOR: Yates Petroleum Corporation  
ADDRESS: 105 South Fourth Street  
Artesia, NM 88210

Attention: Robert S. Fant

CERTIFICATION DATE: August 1, 1993 (retroactive)

PROJECT AREA:

**TOWNSHIP 18 SOUTH, RANGE 29 EAST, NMPM**

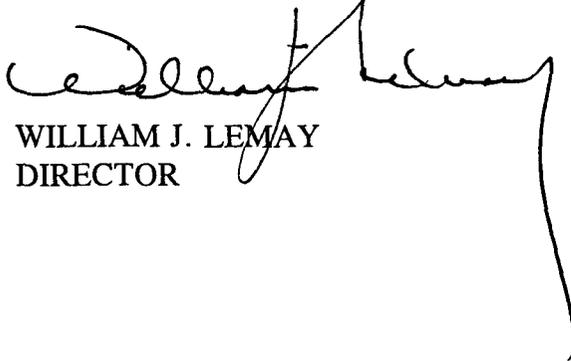
Section 12: SE/4 NE/4 and NE/4 SE/4

**TOWNSHIP 18 SOUTH, RANGE 30 EAST, NMPM**

Section 7: Lots 2 and 3 (SW/4 NW/4 and NW/4 SW/4 equivalents).

APPROVED BY:

STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION



WILLIAM J. LEMAY  
DIRECTOR

S E A L

OIL CONSERVATION DIVISION

September 19, 1995

Department of Taxation and Revenue  
P.O. Box 630  
Santa Fe, NM 87509-0630

Attention: John Chavez, Secretary

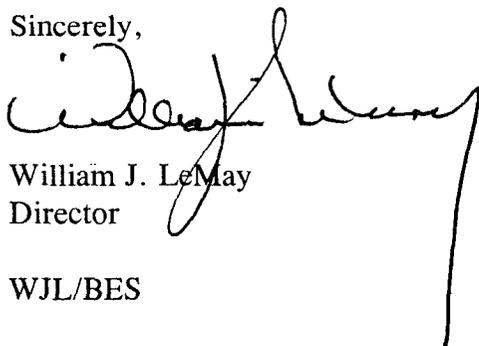
**RE: Certification of EOR Project  
Yates Petroleum Corporation  
West Loco Hills G4S Unit**

Dear Secretary Chavez:

Enclosed is a copy of the certification issued to Yates Petroleum Corporation for its West Loco Hills G4S Unit EOR project, certified by this Division on August 1, 1993 (retroactive), to be a qualified Enhanced Oil Recovery Project. If the operator applies for certification of positive production response within five years from that date, this project will be eligible for the *Recovered Oil Tax Rate* as provided in Laws of 1992, Chapter 38.

Only oil production from that portion of the lands identified in the certification which is actually developed for enhanced recovery will be eligible for the reduced tax rate. At the time positive production response is certified, we will identify for you the specific lands and wells within the project which qualify for the *Recovered Oil Tax Rate*.

Sincerely,



William J. LeMay  
Director

WJL/BES

Enclosures

OIL CONSERVATION DIVISION  
RECEIVED

MARTIN YATES, III  
1912 - 1985  
FRANK W. YATES  
1936 - 1986

05 SEP 15 AM 8 52



105 SOUTH FOURTH STREET  
ARTESIA, NEW MEXICO 88210  
TELEPHONE (505) 748-1471

S. P. YATES  
CHAIRMAN OF THE BOARD  
JOHN A. YATES  
PRESIDENT  
PEYTON YATES  
EXECUTIVE VICE PRESIDENT  
RANDY G. PATTERSON  
SECRETARY  
DENNIS G. KINSEY  
TREASURER

September 11, 1995

Benjamin E. Stone  
Oil Conservation Division  
P.O. Box 6429  
Santa Fe, New Mexico 87505-6429

RE: EOR Project Certification on the West Loco Hills G45 Unit

Dear Mr. Stone:

In response to your letter dated August 10, 1995 Yates Petroleum is making the following request.

Please certify to the Taxation and Revenue Department of the State of New Mexico that CO<sub>2</sub> injection on the subject project commenced on July 22, 1993.

Thank you.

Sincerely,

A handwritten signature in cursive script that reads 'Robert S. Fant'.

Robert S. Fant  
Engineer

RSF/cvg

OIL CONSERVATION DIVISION

August 10, 1995

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

Attn: Mr. Bob Fant

Re: EOR Project Certification on the West Loco Hills G4S Unit

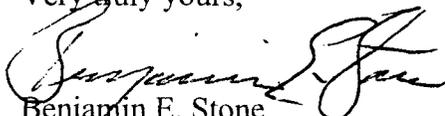
Dear Mr. Fant,

The Oil Conservation Division has recently been reviewing and updating many of our files. During this process, the file containing information on the above referenced EOR project was reviewed and there was no associated *Certification Date*. The Certification Date is that date which identifies when injection operations have been initiated on the subject project so that the Division may certify this occurrence to the Taxation and Revenue Department. So that the subject project may be credited when that time comes, please inform this office at your earliest convenience, which of the following applies:

- 1) The subject project has not yet had injection operations initiated.
- 2) The subject project has initiated injection and will upon receipt of this letter, request that certification be made to Taxation and Revenue.
- 3) Injection has been initiated, a Certification Date has been issued for the subject project and a copy of such certification is being supplied in response to this request.

We apologize for any confusion regarding the situation and we appreciate your cooperation. Please direct replies or question to me at (505)827-8186.

Very truly yours,

  
Benjamin E. Stone  
UIC Administrator

/BES

STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT  
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING  
CALLED BY THE OIL CONSERVATION  
DIVISION FOR THE PURPOSE OF  
CONSIDERING:

*CASE NO. 10564  
ORDER NO. R-2178-E*

**APPLICATION OF YATES PETROLEUM CORPORATION TO QUALIFY A  
CERTAIN CARBON DIOXIDE INJECTION PILOT PROJECT FOR THE  
RECOVERED OIL TAX RATE PURSUANT TO THE "NEW MEXICO ENHANCED  
OIL RECOVERY ACT", EDDY COUNTY, NEW MEXICO**

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on October 1, 1992, at Santa Fe, New Mexico, before Examiner Michael E. Stogner.

NOW, on this 14th day of October, 1992 the Division Director, having considered the testimony, the record and the recommendations of the Examiner, and being fully advised in the premises,

FINDS THAT:

(1) Due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.

(2) By Division Order No. R-2178-D, issued in Case No. 10476 and dated July 9, 1992, Yates Petroleum Corporation was granted authorization to initiate its Loco Hills CO<sub>2</sub>/Water Injection Pilot Project, by injecting carbon dioxide and water into the Fourth Sand Member of the Grayburg formation underlying portions of the SE/4 NE/4 and NE/4 SE/4 (Units H and I, respectively) of Section 12, Township 18 South, Range 29 East, NMPM, and Lots 2 and 3 (SW/4 NW/4 and NW/4 SW/4 equivalents, Units E and L, respectively) of Section 7, Township 18 South, Range 30 East, NMPM; both portions of said sections located in the Loco Hills Queen-Grayburg-San Andres Pool, West Loco Hills Grayburg No. 4 Sand Unit, Eddy County, New Mexico.

(3) Said project to be initially developed on a 22.5 acre and a 10 acre (approximate) inverted five-spot pattern utilizing the following two wells as carbon dioxide/water injection wells both located in said Section 7:

- West Loco Hills G4S Unit Tract 1 Well No. 9  
1980' FNL - 40' FWL (Unit E); and,
- West Loco Hills G4S Unit Tract 1 Well No. 10  
2455' FSL - 50' FWL (Unit L).

(4) Both aforementioned wells have been drilled and are currently injecting water in order to establish proper injection rates and to establish production rates under secondary recovery operations on the following five existing wells within the pilot project area prior to initially starting carbon dioxide injection:

- West Loco Hills G4S Tract 13A Well No. 4  
1650' FNL - 330' FEL (Unit H) of Section 12;
- West Loco Hills G4S Tract 6 Well No. 1  
1980' FSL - 660' FEL (Unit I) of Section 12;

both wells are located in Section 12, Township 18 South, Range 29 East, NMPM;

- West Loco Hills G4S Tract 1 Well No. 2  
1650' FNL - 330' FWL (Unit E) of Section 7;
- West Loco Hills G4S Tract 1 Well No. 3  
1980' FSL - 660' FWL (Unit L) of Section 7; and,
- West Loco Hills G4S Tract 1 Well No. 8  
2310' FNL - 330' FWL (Unit E) of Section 7,

the three above-described wells are located in Section 7, Township 18 South, Range 30 East, NMPM.

(5) At this time, Yates Petroleum Corporation seeks an order pursuant to the Rules and Procedures for Qualifications of Enhanced Oil Recovery Projects and Certification of Recovered Oil Tax Rates, as promulgated by Division Order No. R-9708, qualifying said Loco Hills CO<sub>2</sub>/Water Injection Pilot Project for the recovered oil tax rate under the "Enhanced Oil Recovery Act" (Laws 1992, Chapter 38, Sections 1 through 5).

(6) Based on the record made at the July 18, 1992 hearing in Case No. 10476 and in the testimony presented in this case:

- (a) the application of carbon dioxide to the project area should result in an increase in the amount of crude oil ultimately recovered therefrom;
- (b) the project area has been so depleted that it is prudent to implement a carbon dioxide flood to maximize the ultimate recovery of crude oil from the project area; and,
- (c) the proposed enhanced oil recovery project is economically and technically feasible and has not been prematurely filed.

(7) The subject pilot project should be qualified an "Enhanced Oil Recovery Project" (EOR) pursuant to the "Enhanced Oil Recovery Act" (Laws 1992, Chapter 38, Sections 1 through 5).

(8) To be eligible for the EOR credit, the operator should advise the Division when the carbon dioxide injection phase of the project commences and at such time, request the Division certify the project to the New Mexico Taxation and Revenue Department.

(9) The "enhanced oil recovery project area" should initially comprise the proration units assigned the producing wells to be affected by CO<sub>2</sub>/water injection which includes the following area:

**TOWNSHIP 18 SOUTH, RANGE 29 EAST, NMPM**

Section 12: SE/4 NE/4 and NE/4 SE/4

**TOWNSHIP 18 SOUTH, RANGE 30 EAST, NMPM**

Section 7: Lots 2 and 3(SW/4 NW/4 and NW/4 SW/4 equivalents).

(10) The application should be approved and the EOR project should be governed by the provisions of the "Rules and Procedures for Qualifications of Enhanced Oil Recovery Projects" and "Certification for Recovered Oil Tax Rate" as promulgated by Division Order No. R-9708.

IT IS THEREFORE ORDERED THAT:

(1) The application of Yates Petroleum Corporation to qualify its Loco Hills CO<sub>2</sub>/Water Injection Pilot Project, which was the subject of Division Order No. R-2178-D, as an "Enhanced Oil Recovery Project" pursuant to the "Enhanced Oil Recovery Act" (Laws 1992, Chapter 38, Sections 1 through 5), is hereby approved.

(2) The subject "enhanced oil recovery project area" shall initially comprise the following described areas in Eddy County, New Mexico.

TOWNSHIP 18 SOUTH, RANGE 29 EAST, NMPM

Section 12: SE/4 NE/4 and NE/4 SE/4

TOWNSHIP 18 SOUTH, RANGE 30 EAST, NMPM

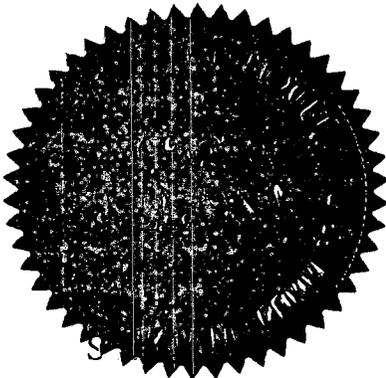
Section 7: Lots 2 and 3(SW/4 NW/4 and NW/4 SW/4 equivalents).

(3) The operator shall advise the Division when the CO<sub>2</sub> injection phase of the project commences.

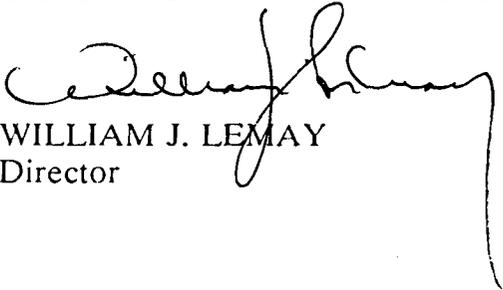
(4) Said EOR project shall be governed by the provisions of the "Rules and Procedures for Qualifications of Enhanced Oil Recovery Projects" and "Certification for Recovered Oil Tax Rate" as promulgated by Division Order No. R-9708.

(5) Jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.



STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION

  
WILLIAM J. LEMAY  
Director

STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT  
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING  
CALLED BY THE OIL CONSERVATION  
DIVISION FOR THE PURPOSE OF  
CONSIDERING:

CASE NO. 10476  
ORDER NO. R-2178-D

APPLICATION OF YATES PETROLEUM CORPORATION FOR AMENDMENT  
TO DIVISION ORDER NO. R-2178, AS AMENDED, TO INCLUDE A CARBON  
DIOXIDE INJECTION PILOT PROJECT, TWO UNORTHODOX INJECTION  
WELL LOCATIONS, AND TO RESCIND DIVISION ORDER NO. R-7821, EDDY  
COUNTY, NEW MEXICO

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on May 14, 1992, at Santa Fe, New Mexico, before Examiner Michael E. Stogner.

NOW, on this 9<sup>th</sup> day of July, 1992 the Division Director, having considered the testimony, the record and the recommendations of the Examiner, and being fully advised in the premises,

FINDS THAT:

- (1) Due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.
- (2) The applicant, Yates Petroleum Corporation, seeks authority to initiate and conduct a pilot carbon dioxide/water injection project to be known as the Yates Petroleum Corporation Loco Hills CO<sub>2</sub>/Water Injection Pilot Project, hereinafter referred to as "pilot project", for tertiary recovery purposes and to test the CO<sub>2</sub> miscible process in the Fourth Sand Member of the Grayburg formation [as indicated on the Acoustilog run on September 4, 1964 in the Newmont Oil Company West Loco Hills Unit 6 Well No. 3 located 660 feet from the South line and 1980 feet from the East line (Unit O) of Section 12, Township 18 South, Range 29 East, NMPM, Eddy County, New Mexico] underlying portions of the SE/4 NE/4 and NE/4 SE/4 of said Section 12 and Lots 2 and 3 (SW/4 NW/4 and NW/4 SW/4 equivalents) of Section 7, Township 18 South, Range 30 East, NMPM, Eddy County, New Mexico, all in the Loco Hills Queen

Grayburg San Andres Pool, West Loco Hills Grayburg No. 4 Sand Unit, West Loco Hills Grayburg No. 4 Sand Unit Waterflood Project (authorized by Division Order No. R-2178, as amended).

(3) Applicant further seeks the rescission of Division Order No. R-7821, dated February 21, 1985, which authorized a similar project in the area but was never initiated by the operator and the other working interest owners due to poor economics and technical concerns.

(4) The applicant proposes to initially develop its proposed pilot project utilizing a twenty-two and one half acre inverted five-spot pattern and a ten acre inverted five-spot pattern which requires the drilling of two carbon dioxide/water injection wells at the following unorthodox locations in said Section 7:

- West Loco Hills G4S Unit Tract 1 Well No. 9  
1980' FNL - 40' FWL (Unit E); and,
- West Loco Hills G4S Unit Tract 1 Well No. 10  
2455' FSL - 50' FWL (Unit L).

(5) The following existing wells will be the producing wells which complete the two aforementioned patterns and will be directly affected by the proposed pilot project:

- West Loco Hills G4S Tract 13A Well No. 4  
1650' FNL - 330' FEL (Unit H) of Section 12;
- West Loco Hills G4S Tract 6 Well No. 1  
1980' FSL - 660' FEL (Unit I) of Section 12;
- West Loco Hills G4S Tract 1 Well No. 2  
1650' FNL - 330' FWL (Unit E) of Section 7;
- West Loco Hills G4S Tract 1 Well No. 3  
1980' FSL - 660' FWL (Unit L) of Section 7; and,
- West Loco Hills G4S Tract 1 Well No. 8  
2310' FNL - 330' FWL (Unit E) of Section 7.

A sixth producing well, to be located approximately 2310 feet from the North line and 330 feet from the East line (Unit H) of Section 12, will be drilled if the project is successful.

(6) The area within the periphery of the five producing wells and the proposed producing well is the area of the pilot project for which this order will hereinafter be concerned.

(7) The pilot project is in an area where extensive primary and secondary recovery operations have been conducted, (see Division Order No. R-2178, as amended), and is of an experimental nature in order to evaluate the effectiveness of carbon dioxide into the subject reservoir and to provide a study of zone isolation, vertical heterogeneity, reservoir directional variation and the carbon dioxide displacement process.

(8) The applicant proposes to inject 60 tons of CO<sub>2</sub> per well per day over a two month period alternating with 400 barrels of water per well per day for a one month period.

(9) There are sufficient differences between the proposed pilot project and the project approved by Order No. R-7821 which made it necessary for the applicant to seek authorization through the Division's hearing process. Therefore, Division Order No. R-7821 should be rescinded at this time and a separate order be issued granting authorization for the proposed pilot project.

(10) The operator of the proposed pilot project should take all steps necessary to ensure that the injected fluids enter only the proposed injection interval and are not permitted to escape to other formations or onto the surface via surrounding injection, production and/or plugged and abandoned wells.

(11) Prior to commencing injection operations, the casing of the subject wells should be pressure-tested throughout the interval, from the surface down to the proposed packer-setting depth, to assure integrity of such casing.

(12) The injection into each of the injection wells, as described in Finding Paragraph No. (4) above, should be accomplished through 2 7/8-inch plastic lined tubing installed in a packer set not more than 100 feet above the uppermost perforation; the casing-tubing annulus of each injection well should be filled with an inert fluid; and a pressure gauge or approved leak-detection device should be attached to the annulus in order to determine leakage in the casing, tubing or packer.

(13) Said injection wells herein authorized and/or the injection authorization system should be so equipped as to limit injection pressure at the wellhead to no more than 560 psi provided however, the Division Director may authorize a higher surface injection pressure upon satisfactory showing that such pressure will not result in fracturing of the confining strata.

(14) The operator shall notify the supervisor of the Artesia District Office of the Division of the date and time of the installation of injection equipment and of the mechanical integrity pressure test on each of the proposed injection wells so that the same may be inspected.

(15) The evidence presently available indicates that there is not fresh water within the area of interest.

(16) In the event the pilot project is successful and indicates the desirability and economic feasibility of the process, the pilot project could be expanded to include additional lands and wells, and could result in the production of otherwise unrecoverable oil, thereby preventing waste.

(17) The pilot project is to be conducted within the boundaries of the West Loco Hills Grayburg No. 4 Sand Unit Area, a unitized area, and will therefore not impair correlative rights.

(18) The proposed pilot project should be approved, as well as the requested unorthodox injection well locations as described in Finding Paragraph No. (4) above.

**IT IS THEREFORE ORDERED THAT:**

(1) The applicant, Yates Petroleum Corporation, is hereby authorized to initiate and conduct a pilot carbon dioxide/water injection project known as the Yates Petroleum Corporation Loco Hills CO<sub>2</sub>/Water Injection Pilot Project, hereinafter referred to as the "pilot project" in the Fourth Sand Member of the Grayburg formation underlying portions of the SE/4 NE/4 and NE/4 SE/4 (Units H and I, respectively) of Section 12, Township 18 South, Range 29 East, NMPM, and Lots 2 and 3 (SW/4 NW/4 and NW/4 SW/4 equivalents, Units E and L, respectively) of Section 7, Township 18 South, Range 30 East, NMPM; both portions of said sections located in the Loco Hills Queen-Grayburg-San Andres Pool, West Loco Hills Grayburg No. 4 Sand Unit, Eddy County, New Mexico.

(2) The applicant is hereby authorized to initially develop the above-described pilot project on a 22 1/2-acre and a 10-acre (approximate) inverted five-spot injection pattern utilizing the following wells to be drilled as carbon dioxide/water injection wells hereby approved in Section 7:

- West Loco Hills G4S Unit Tract 1 Well No. 9  
1980' FNL - 40' FWL (Unit E); and,

- West Loco Hills G4S Unit Tract 1 Well No. 10  
2455' FSL - 50' FWL (Unit L).

(3) Injection into each of the above-described injection wells shall be accomplished through 2 7/8-inch tubing installed in a packer set not more than 100 feet above the uppermost perforation;

PROVIDED HOWEVER THAT, the tubing shall be internally plastic lined; the casing-tubing annulus of each injection well shall be filled with an inert fluid; and a pressure gauge shall be attached to the annulus or the annulus shall be equipped with an approved leak-detection device in order to determine leakage in the casing, tubing or packer.

PROVIDED FURTHER THAT, prior to commencing injection operations, the casing in the subject wells shall be pressure-tested to assure the integrity of such casing in a manner that is satisfactory to the supervisor of the Division's Artesia District Office.

(4) The injection wells herein authorized and/or the injection pressurization equipment shall be so equipped as to limit injection pressure at the wellhead to no more than 560 psi, provided however, the Division Director may authorize a higher surface injection pressure upon satisfactory showing that such pressure will not result in fracturing of the confining strata.

(5) The operator shall notify the supervisor of the Artesia District Office of the Division in advance of the date and time of the installation of injection equipment and of the mechanical integrity pressure-test in order that the same may be witnessed.

(6) To further develop the above-described inverted five-spot injection pattern, the applicant is hereby authorized to drill an additional producing well at an undetermined and possible unorthodox location in the SE/4 NE/4 (Unit H) of said Section 12, Township 18 South, Range 29 East, NMPM, provided said well shall be located no closer than 10 feet to any boundary of said quarter-quarter section.

(7) The following existing wells are hereby approved as production wells with the pilot project to fully develop and complete the aforesaid inverted five-spot injection pattern:

- West Loco Hills G4S Tract 13A Well No. 4  
1650' FNL - 330' FEL (Unit H) of Section 12;

- West Loco Hills G4S Tract 6 Well No. 1  
1980' FSL - 660' FEL (Unit I) of Section 12;

both wells being located in said Section 12, Township 18 South, Range 29 East, NMPM;

- West Loco Hills G4S Tract 1 Well No. 2  
1650' FNL - 330' FWL (Unit E) of Section 7;
- West Loco Hills G4S Tract 1 Well No. 3  
1980' FSL - 660' FWL (Unit L) of Section 7; and,
- West Loco Hills G4S Tract 1 Well No. 8  
2310' FNL - 330' FWL (Unit E) of Section 7,

the three above-described wells being located in said Section 7, Township 18 South, Range 30 East, NMPM.

(8) A sixth producing well, if said project is successful, is to be drilled to complete the two injection patterns at a standard oil well location approximately 2310 feet from the North line and 330 feet from the East line (Unit H) of said Section 12.

(9) The area within the periphery of the five existing wells and the proposed producing well as described above shall be the area of the pilot project.

(10) The operator shall immediately notify the supervisor of the Division's Artesia District Office of the failure of the tubing, casing or packer in said well or the leakage of water from or around said well and shall take such steps as may be timely and necessary to correct such failure or leakage.

(11) Any time that any of the producing wells in the pilot project are shut-in for over ninety consecutive days, the Supervisor of the Artesia District Office shall be notified, at which time it shall be demonstrated that any wells that lie between the outside of the aforesaid five-spot injection pattern and a half-mile radius of the aforesaid injection wells will not be adversely affected by the carbon dioxide/water injection operations.

(12) The Yates Petroleum Corporation Loco Hills CO<sub>2</sub>/Water Injection Pilot Project shall be governed by this order and the rules contained herein and by the provisions of Rules 701 through 708 of the Division rules which are not in conflict with this order.

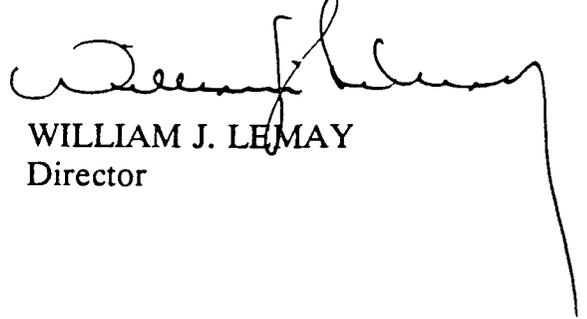
(13) Monthly progress reports of the waterflood project herein authorized shall be submitted to the Division in accordance with Rules 706 and 1115 of the Division Rules and Regulations.

(14) Division Order No. R-7821, issued in Case No. 8324 and dated February 21, 1985, is hereby rescinded.

(15) Jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION



WILLIAM J. LEMAY  
Director

S E A L

STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT  
OIL CONSERVATION COMMISSION

IN THE MATTER OF THE HEARING  
CALLED BY THE OIL CONSERVATION  
DIVISION FOR AN ORDER ADOPTING  
RULES TO IMPLEMENT THE ENHANCED OIL  
RECOVERY ACT.

CASE NO. 10492  
Order No. R-9708

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9:00 a.m. on June 11, 1992, at Santa Fe, New Mexico, before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission."

NOW, on this 27th day of August, 1992, the Commission, a quorum being present, having considered the testimony presented and the exhibits received at said hearing, and being fully advised in the premises,

FINDS THAT:

(1) Due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.

(2) The 1992 Legislature of the State of New Mexico approved the "Enhanced Oil Recovery Act" (laws 1992, Chapter 38 Sections 1 through 5).

(3) The Legislature directed the Oil Conservation Division to adopt rules for administering the Enhanced Oil Recovery Act.

(4) The approval of a project referenced in the Act is the approval required under the Oil and Gas Act, Section 70-2-1 et seq. NMSA and the Rules and Regulations of the Division before such projects are to be commenced.

(5) It is necessary to adopt additional rules to meet the specific requirements under the Act for qualification of an enhanced oil recovery project for the tax credit.

Case No. 10492  
Order No. R-9708  
Page 2

IT IS THEREFORE ORDERED THAT:

(1) The Rules and Procedures for Qualification of Enhanced Oil Recovery Projects and Certification for the Recovered Tax Rate contained in Exhibit A attached hereto are adopted made a part of this order.

(2) Jurisdiction is hereby retained for the entry of such further orders as the Commission may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

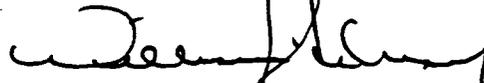
OIL CONSERVATION COMMISSION  
STATE OF NEW MEXICO



GARY CARLSON, Member



WILLIAM W. WEISS, Member



WILLIAM J. LEMAY, Chairman

S E A L

dr/

Exhibit "A"  
Case No. 10492  
Order No. R-9708

STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT  
OIL CONSERVATION DIVISION  
POST OFFICE BOX 2088  
SANTA FE, NEW MEXICO 87504

**RULES AND PROCEDURES  
FOR QUALIFICATIONS OF  
ENHANCED OIL RECOVERY  
PROJECTS AND CERTIFICATION FOR  
THE RECOVERED OIL TAX RATE**

**A. General**

Applications for qualification of enhanced oil recovery projects, expansions of existing enhanced oil recovery projects for the recovered tax rate pursuant to the New Mexico "Enhanced Oil Recovery Act" (L 1992, Chapter 38, Sections 1 through 5) shall be accepted by the Conservation Division after March 6, 1992.

**B. Applicability**

These rules apply to:

1. enhanced oil recovery (EOR) projects;
2. expansions of existing EOR projects;
3. the expanded use of enhanced oil recovery technology in existing EOR projects; and
4. the change from a secondary recovery project to a tertiary recovery project.

**C. Definitions**

1. "Crude oil" means oil and other liquid hydrocarbons removed from natural gas at or near the wellhead.
2. "Division" means the Oil Conservation Division of the Energy, Minerals and Natural Resources Department.
3. "Enhanced Oil Recovery (EOR) Project" means the use or the expanded use of any process for the displacement of crude oil from

an oil well or pool classified by the Division other than a primary recovery process, including but not limited to the use of a pressure maintenance process, a waterflooding process, an immiscible, miscible, chemical, thermal or biological process or any other related process.

4. "Expansion or Expanded Use" means a significant change or modification as determined by the Oil Conservation Division in (a) the technology or process used for the displacement of crude oil from an oil well or pool classified by the Division; or (b) the expansion, extension or increase in size of the geologic area or adjacent geologic area that could reasonably be determined to represent a new or unique area of activity.
5. "Operator" means the person responsible for the actual physical operation of an enhanced recovery project.
6. "Positive Production Response" means that the rate of oil production from the wells or pools affected by an enhanced recovery project is greater than the rate that would have occurred without the project.
7. "Primary Recovery" means the displacement of crude oil from an oil well or pool classified by the Division into the well bore by means of the natural pressure of the oil well or pool, including but not limited to artificial lift.
8. "Recovered Oil Tax Rate" means the tax rate, as set forth in Paragraph (3) of Subsection A of Section 7-29-4 NMSA 1978, on crude oil produced from an enhanced recovery project.
9. "Secondary Recovery Project" means an enhanced recovery project that: (a) occurs subsequent to the completion of primary recovery and is not a tertiary recovery project; (b) involves the application, in accordance with sound engineering principles of carbon dioxide miscible fluid displacement, pressure maintenance, waterflooding or any other secondary recovery method accepted and approved by the Division that can reasonably be expected to result in an increase, determined in light of all facts and circumstances, in the amount of crude oil that may ultimately be recovered; and (c) encompasses a pool or portion of a pool the boundaries of which can be adequately defined and controlled.
10. "Termination" means the discontinuance of an enhanced recovery project by the operator.
11. "Tertiary Recovery Project" means an enhanced recovery project that: (a) occurs subsequent to the completion of a secondary recovery project; (b) involves the application, in accordance with sound engineering principles, of carbon dioxide miscible fluid displacement, pressure maintenance, water flooding or any other tertiary recovery method accepted and approved by the Division

that can reasonably be expected to result in an increase, determined in light of all facts and circumstances, in the amount of crude oil that may ultimately be recovered; and (c) encompasses a pool or portion of a pool the boundaries of which can be adequately defined and controlled.

#### D. Procedure

1. The Division's general rules of procedure shall apply to applications for qualifications of EOR projects unless altered or amended by these rules.
2. To be eligible for the recovered oil tax rate the operator must apply for and be granted Division approval of a new EOR project or the expansion of an existing EOR project pursuant to the applicable rules and regulations of the Division. No project or expansion approved by the Division prior to March 6, 1992 shall qualify for the recovered tax rate.
3. All applications for approval of EOR projects or the expansion of EOR projects shall be filed in triplicate with the Division at its Santa Fe office. One copy of the application and all attachments shall also be filed with the appropriate Division district office.
4. All applications shall be executed and certified by the operator or its authorized representative having knowledge of the facts therein and shall contain:
  - a. Operators name and address;
  - b. Description of the project area including:
    - (1) a plat outlining the project area;
    - (2) description of the project area by section, township and range;
    - (3) total acres; and
    - (4) name of the subject pool and formation.
  - c. Status of operations in the project area:
    - (1) if unitized, the name of the unit and the date and number of the Division Order approving the unit plan of operation;
    - (2) if an application for approval of a unit plan has been made, the date the application was filed with the

Division; and

- (3) if not unitized, identify each lease in the project by lessor, lessee and legal description.
- d. Method of recovery to be used:
- (1) identify fluids to be injected;
  - (2) if the Division has approved the project, provide date and number of the Division Order; and
  - (3) if the project has not been approved by the Division provide the date the application for approval was filed with the Division on Form C-100.
- e. Description of the project:
- (1) A list of producing wells;
  - (2) A list of injection wells;
  - (3) capital cost of additional facilities;
  - (4) total project cost;
  - (5) the estimated total value of the additional product that will be recovered as a result of this project;
  - (6) anticipated date for commencement of injection;
  - (7) the type of fluid to be injected and the anticipated volumes; and
  - (8) if application is made for an expansion of an existing project, explain what changes in technology will be used or what additional geographic area will be added to the project area.
- f. Production data: Provide graphs, charts and other supporting data to show the production history and production forecast of oil, gas, casinghead gas and water from the project area.

#### **E. Approval - Certification**

1. Project Approval: An EOR project will be approved and the project area designated for the recovered oil tax rate when the operator proves that:

- a. the application of the proposed enhanced recovery technique to the reservoir should result in an increase in the amount of crude oil that may be ultimately recovered therefrom;
- b. the project area has been so depleted that it is prudent to apply enhanced recovery techniques to maximize the ultimate recovery of crude oil; and
- c. the application is economically and technically reasonable and has not been prematurely filed.

2. Positive Production Response Certification:

- a. For the recovered oil tax rate to apply, to oil produced from an approved qualified EOR project, the operator must demonstrate a positive production response to the Division. Applications for certification of a positive production response shall be filed with the Division at its Santa Fe office and shall include:
  - (1) a copy of the Division's approval of the enhanced recovery project or expansion;
  - (2) a plat of the affected area showing all injection and producing wells with completion dates;
  - (3) production graphs and supporting data demonstrating a positive production response and showing the volumes of water or other substances that have been injected on the lease or unit since initiation of the enhanced recovery project.
- b. The Division Director shall have authority to administratively approve an application and certify a positive production response, or at his discretion or at the request of the applicant, may set the application for hearing.
- c. The Division shall certify that a positive production response has occurred and notify the Secretary of the Taxation and Revenue Department. This certification and notice shall set forth the date the certification was made and the date the positive production response occurred provided however:
  - (1) for a secondary recovery project, the application for certification of a positive production response must occur not later than five (5) years from the date the Division issued the certification of approval of the enhanced oil recovery project or expansion; and

- (2) for a tertiary recovery project, the application certification of a positive production response must occur not later than seven (7) years from the date Division issues the certification of approval for enhanced recovery project or expansion.

#### **F. Reporting Requirements**

1. The operator of an approved EOR project shall report annually the status of the project and confirm that the project is still a viable EOR project as approved. The report will be for the year ending May 31 and shall be filed with the Division at its Santa Fe office. The report shall contain:
  - a. The date and number of the Division's certification order for the project.
  - b. Production graphs showing oil, gas and water production.
  - c. A graph showing the volumes of fluid injected and the average injection pressures.
  - d. Any additional data the Director deems necessary for continued approval.
2. The Director may set any such confirmation for hearing should it appear necessary.

#### **G. Termination**

1. When active operation of an approved enhanced recovery project or expansion is terminated, the operator shall notify the Division and the Secretary of Taxation and Revenue in writing not later than the thirtieth (30th) day after the termination of the enhanced recovery project or expansion.

**STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT  
OIL CONSERVATION DIVISION**

IN THE MATTER OF THE HEARING  
CALLED BY THE OIL CONSERVATION  
DIVISION FOR THE PURPOSE OF  
CONSIDERING:

CASE NO. 10564

APPLICATION OF YATES PETROLEUM  
CORPORATION TO QUALIFY A CERTAIN  
CARBON DIOXIDE INJECTION PILOT  
PROJECT FOR THE RECOVERED  
OIL TAX RATE PURSUANT TO THE  
"NEW MEXICO ENHANCED OIL RECOVERY ACT",  
EDDY COUNTY, NEW MEXICO.

**RECEIVED**

SEP 25 1992  
OIL CONSERVATION DIV.  
SANTA FE

**PRE-HEARING STATEMENT**

This Prehearing Statement is submitted by Campbell, Carr, Berge & Sheridan, P.A., as required by the Oil Conservation Division.

**APPEARANCES OF PARTIES**

**APPLICANT**

Yates Petroleum Corporation  
c/o Bob Fant  
105 South Fourth Street  
Artesia, New Mexico 88210  
(505) 748-1471

name, address, phone and  
contact person

**ATTORNEY**

William F. Carr, Esq.  
Campbell, Carr, Berge & Sheridan, P.A.  
Post Office Box 2208  
Santa Fe, New Mexico 87504  
(505) 988-4421

**OPPOSITION OR OTHER PARTY**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

name, address, phone and  
contact person

**ATTORNEY**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**STATEMENT OF CASE**

**APPLICANT**

(Please make a concise statement of what is being sought with this application and the reasons therefore.)

Yates Petroleum Corporation, applicant in the above-styled cause, seeks an order pursuant to the Rules and Procedures for Qualifications of Enhanced Oil Recovery Projects and Certification for the Recovered Oil Tax Rate, as promulgated by Division Order No. R-9708, qualifying its Loco Hills CO<sub>2</sub>/Water Injection Pilot Project (authorized by Division Order No. R-2178-D), located in portions of Section 12, Township 18 South, Range 29 East and Section 7, Township 18 South, Range 30 East, Loco Hills Queen-Grayburg-San Andres Pool, West Loco Hills Grayburg No. 4 Sand Unit, for the recovered oil tax rate under the "Enhanced Oil Recovery Act" (Laws 1992, Chapter 38, Sections 1 through 5).

**OPPOSITION OR OTHER PARTY**

(Please make a concise statement of the basis for opposing this application or otherwise state the position of the party filing this statement.)

**PROPOSED EVIDENCE**

APPLICANT

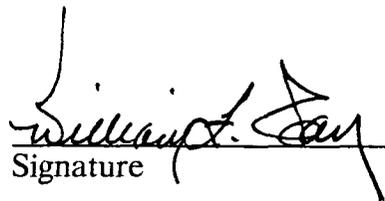
WITNESSES (Name and expertise)	EST. TIME	EXHIBITS
Bob Fant, Petroleum Engineer	10 Min.	Approximately 2

OPPOSITION

WITNESSES (Name and expertise)	EST. TIME	EXHIBITS
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**PROCEDURAL MATTERS**

(Please identify any procedural matters which need to be resolved prior to hearing)

  
Signature

CAMPBELL, CARR, BERGE

& SHERIDAN, P.A.

LAWYERS

MICHAEL B. CAMPBELL  
WILLIAM F. CARR  
BRADFORD C. BERGE  
MARK F. SHERIDAN  
WILLIAM F. SLATTERY

PATRICIA A. MATTHEWS  
MICHAEL H. FELDEWERT

JACK M. CAMPBELL  
OF COUNSEL

JEFFERSON PLACE  
SUITE 1 - 110 NORTH GUADALUPE  
POST OFFICE BOX 2208  
SANTA FE, NEW MEXICO 87504-2208  
TELEPHONE (505) 988-4421  
TELECOPIER (505) 983-6043

October 16, 1992

**HAND-DELIVERED**

Mr. Michael E. Stogner  
Chief Hearing Officer  
New Mexico Department of Energy,  
Minerals and Natural Resources  
State Land Office Building  
Santa Fe, New Mexico 87503

RECEIVED

OCT 16 1992

OIL CONSERVATION DIVISION

Re: Oil Conservation Division Case No. 10564:  
Application of Yates Petroleum Corporation to Qualify a Certain Carbon Dioxide  
Injection Pilot Project for the Recovered Oil Tax Rate, Pursuant to the "New  
Mexico Enhanced Oil Recovery Act", Eddy County, New Mexico

Dear Mike:

Enclosed is certain information from Yates Petroleum Corporation which you requested  
at the hearing in the above-referenced case.

We appreciate the expedited treatment you afforded this application.

As soon as we have determined a date for the commencement of CO<sub>2</sub> injection in this  
pilot project we will advise you in accordance with Order Paragraph 3 of Order No. R-  
2178-E.

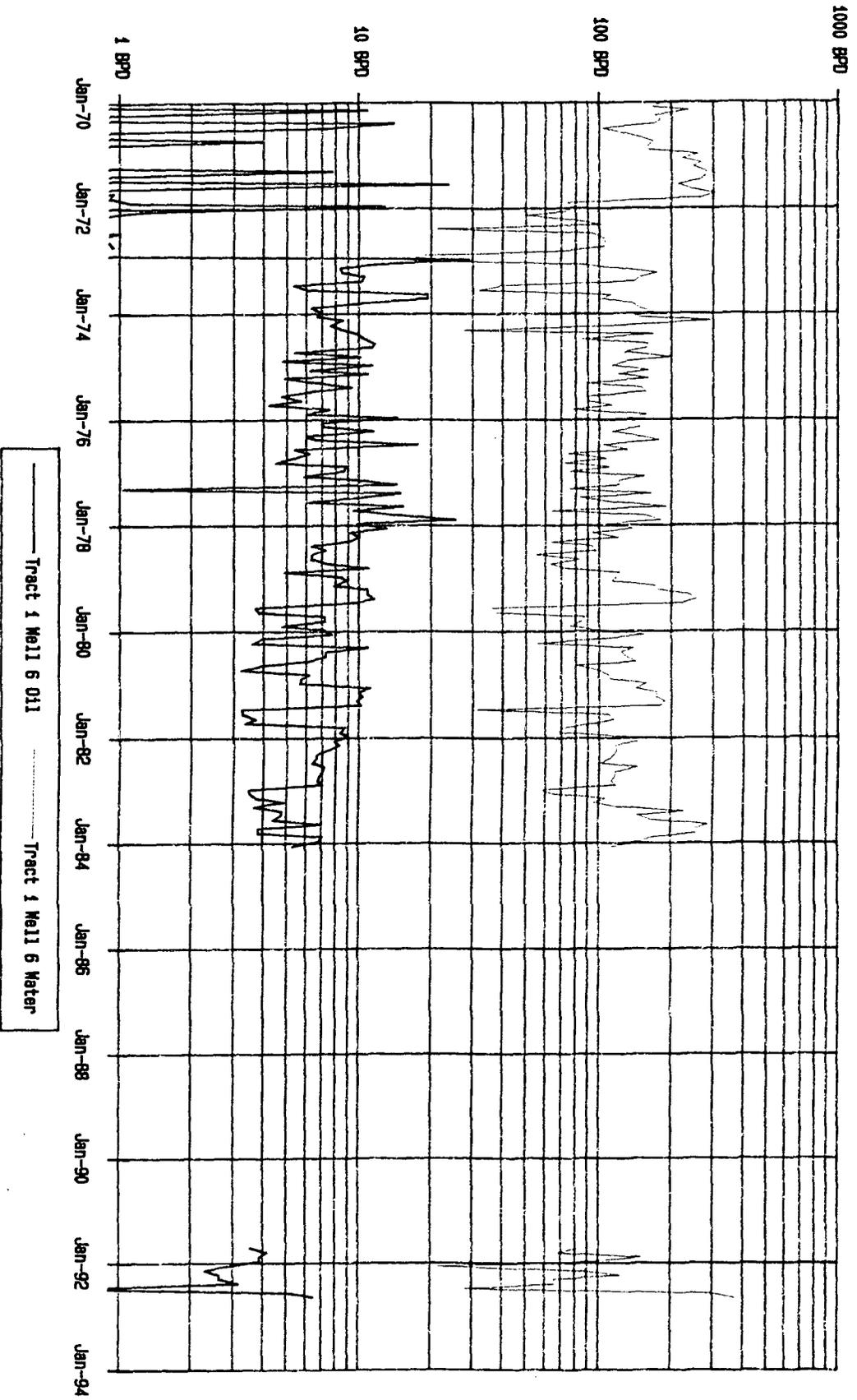
Best regards.

Very truly yours,

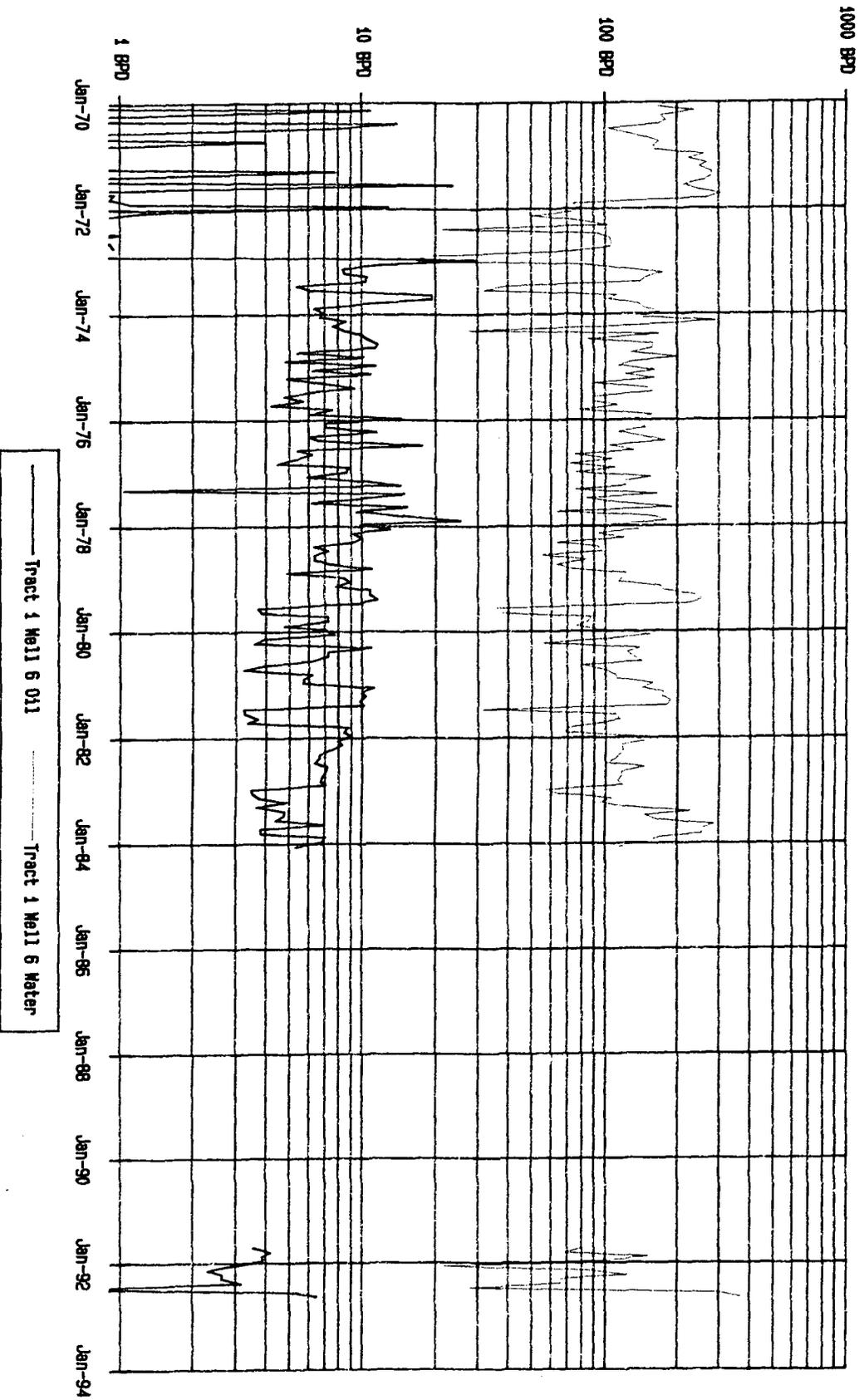
*WFC*

WILLIAM F. CARR  
WFC:mlh  
Enclosures

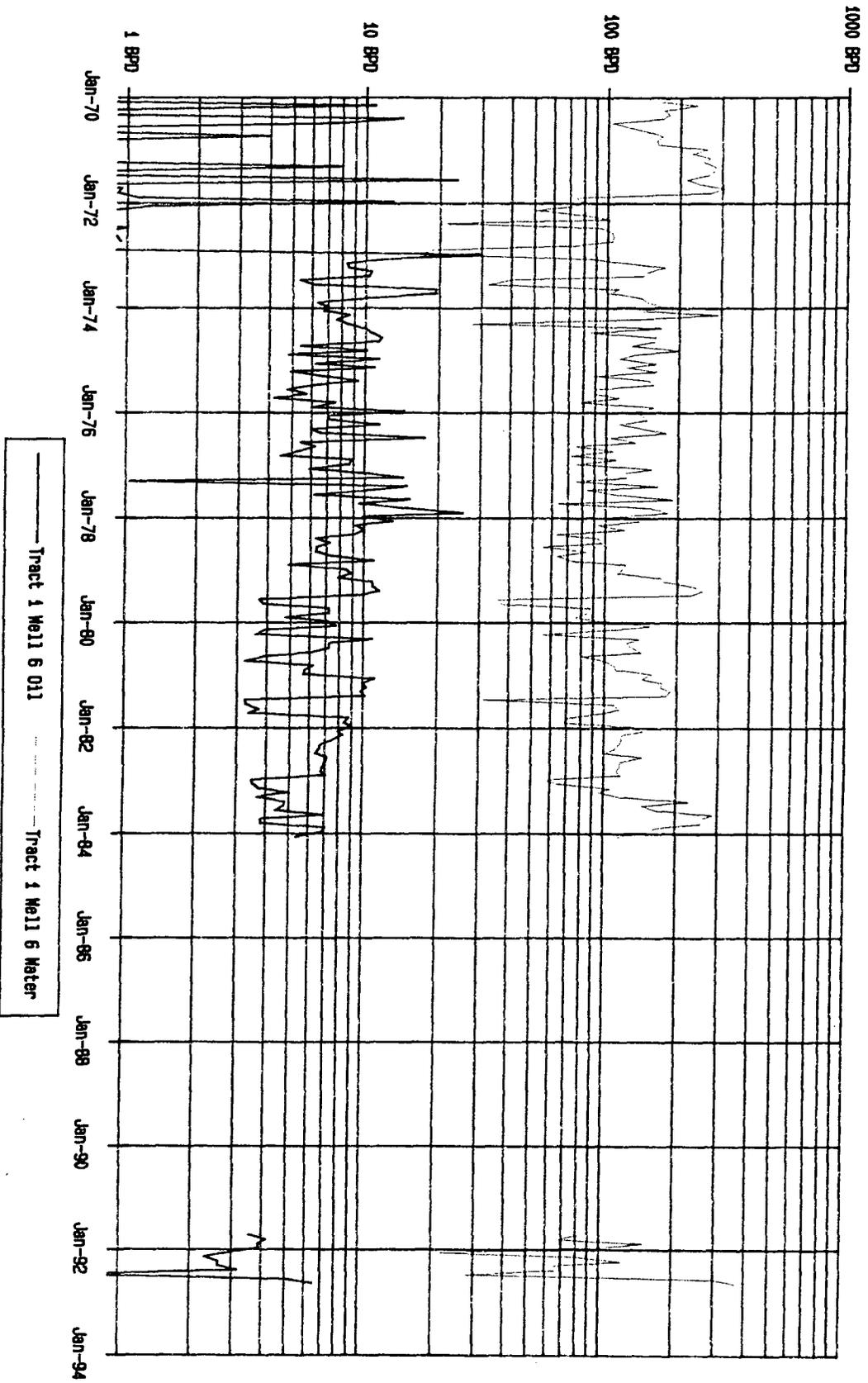
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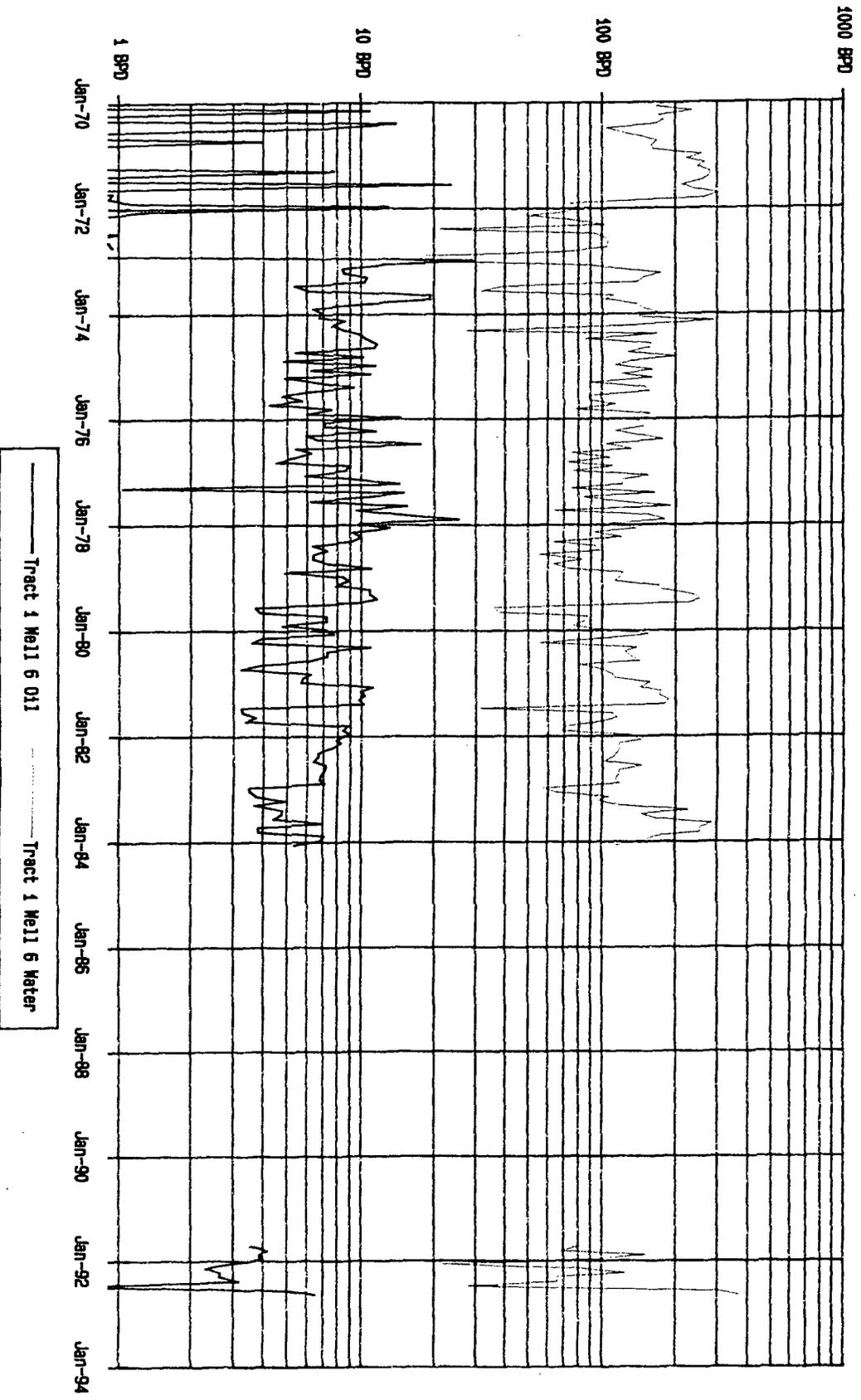
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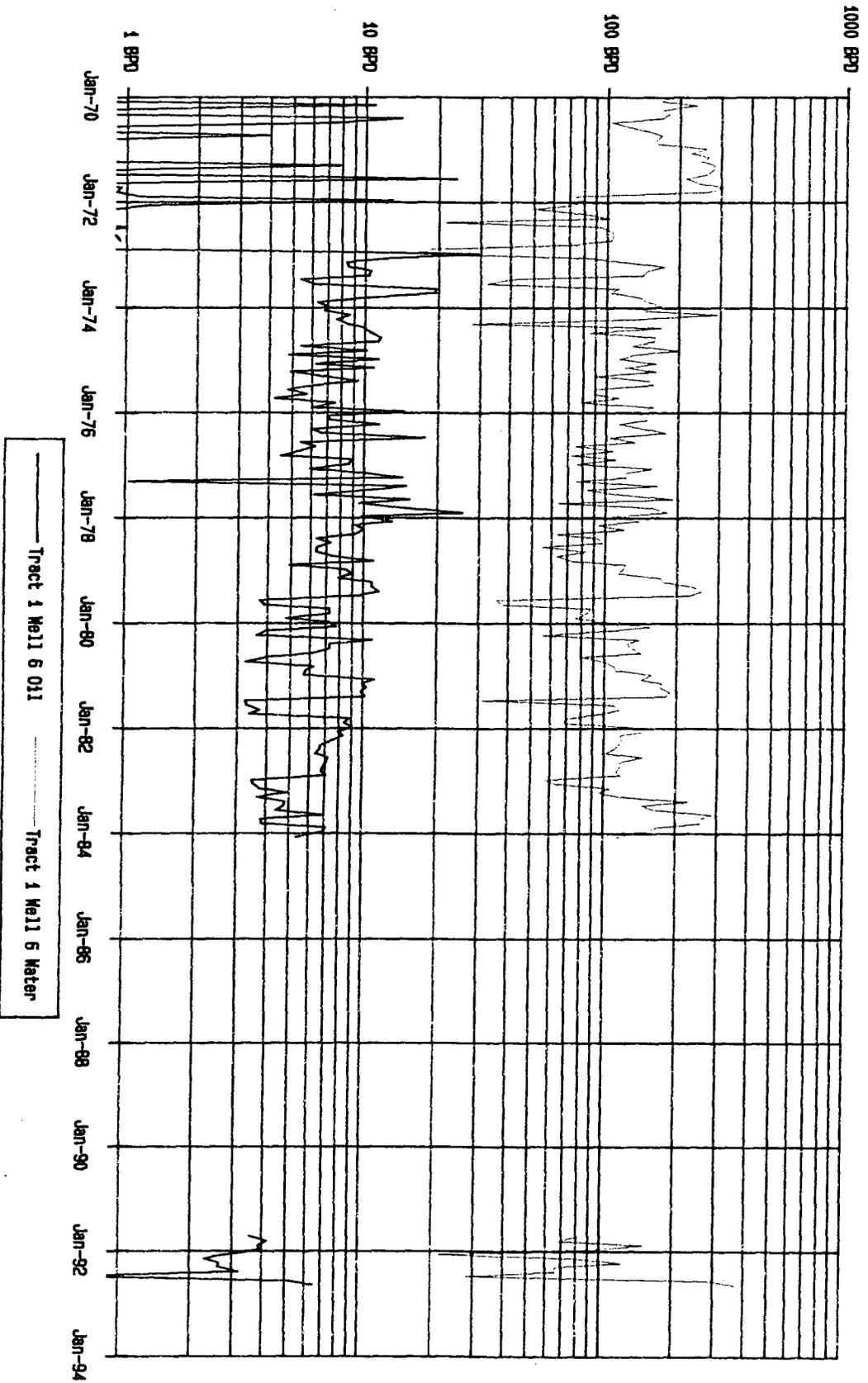
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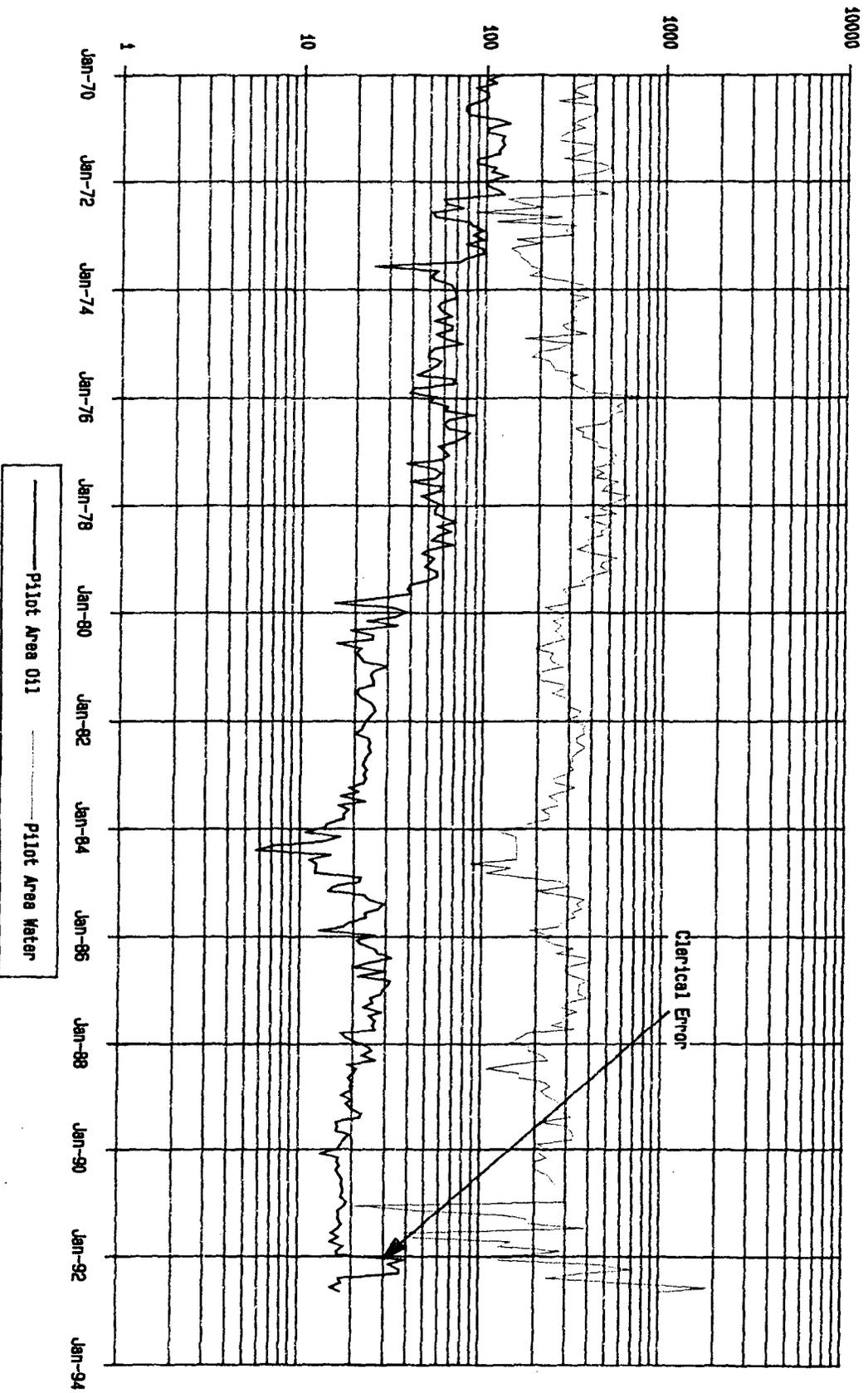
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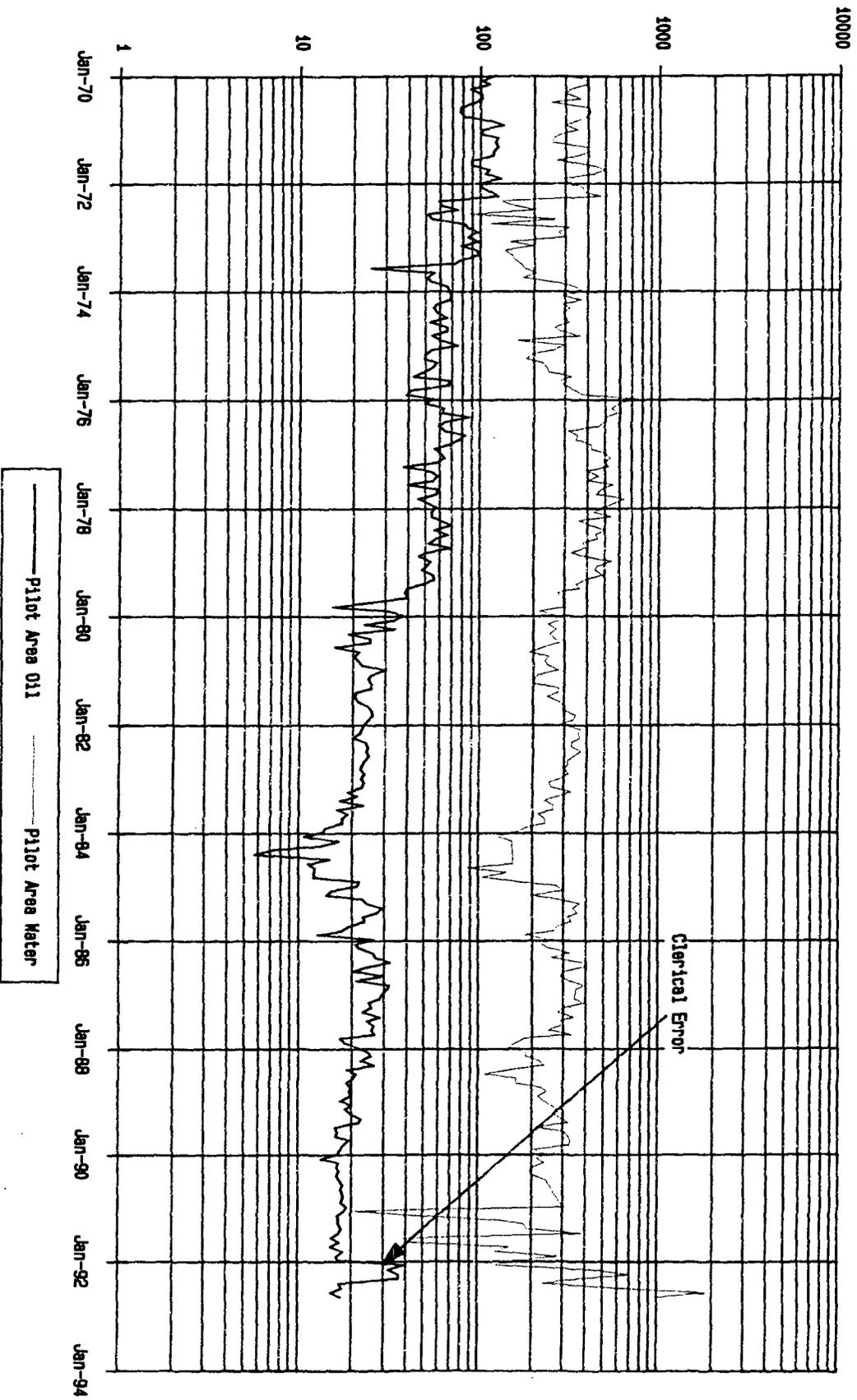
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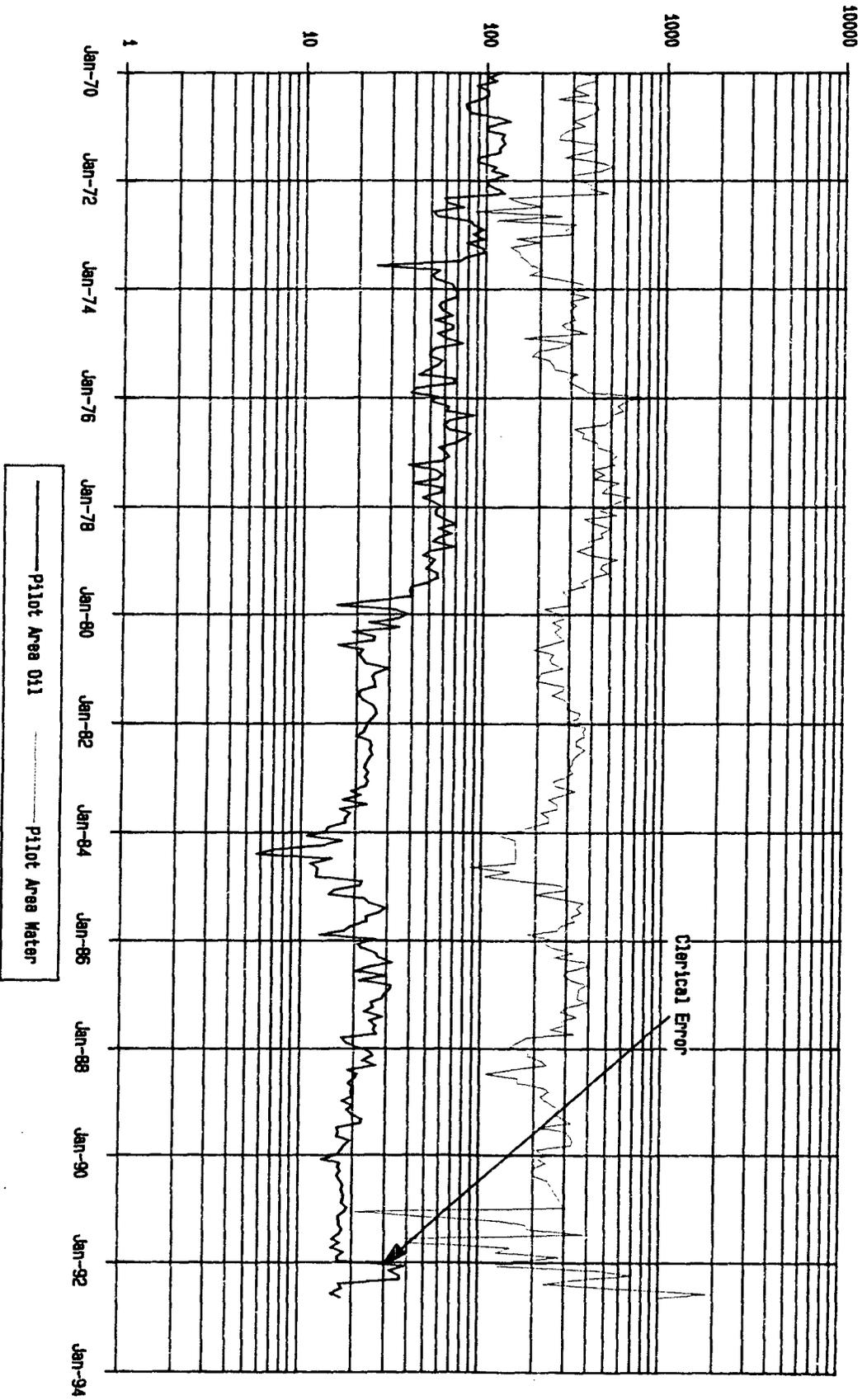
# West Loco Hills GAS Unit CO2 Pilot Project Area Production History



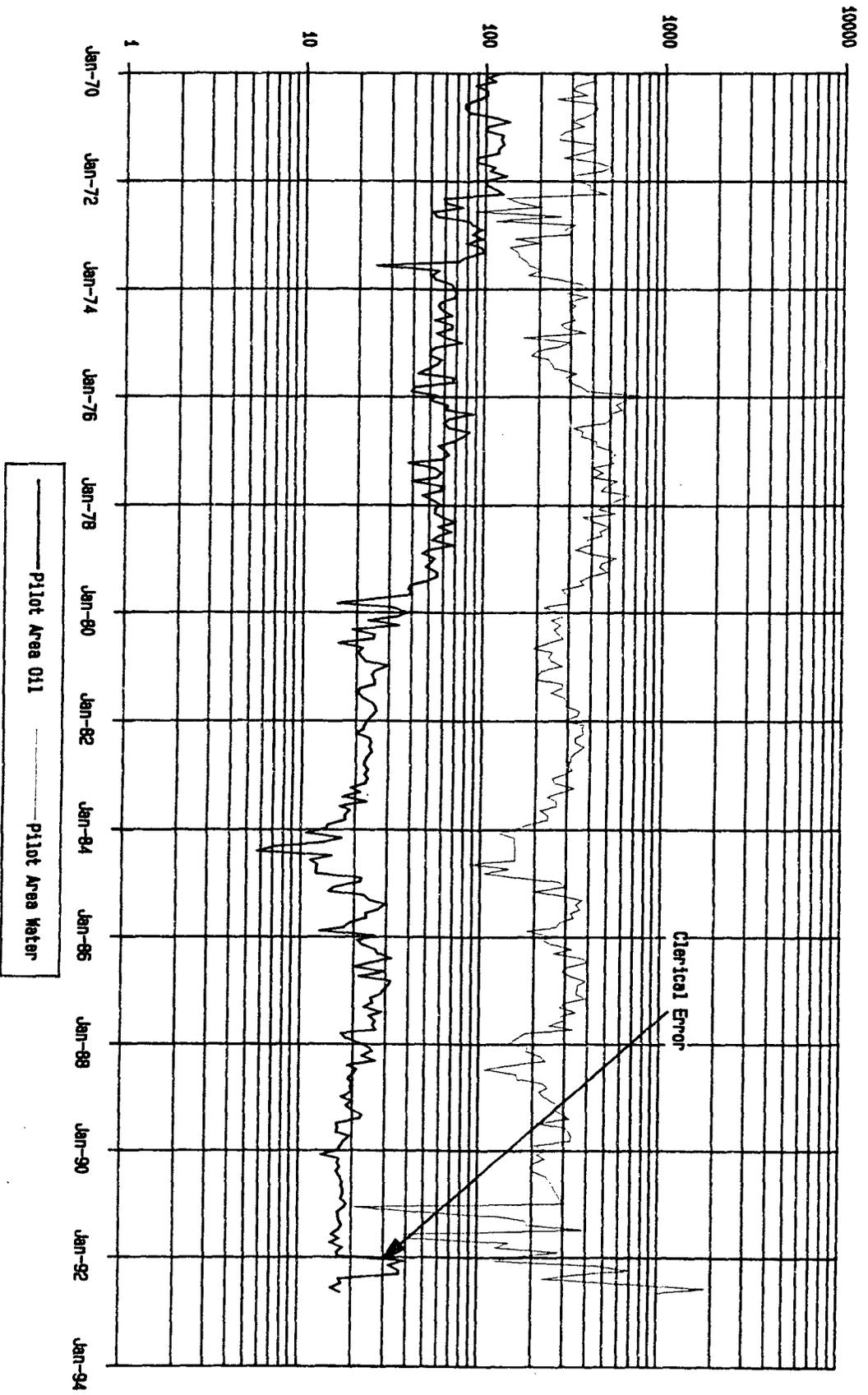
# West Loco Hills GAS Unit CO2 Pilot Project Area Production History



# West Loco Hills 64S Unit C02 Pilot Project Area Production History



# West Loco Hills 64S Unit CO2 Pilot Project Area Production History



# West Loco Hills GAS Unit CO2 Pilot Project Area Production History

