

**MINUTE ITEM**  
This Calendar Item No. C55  
was submitted for information  
by, no action thereon  
being necessary.

INFORMATIVE  
CALENDAR ITEM

C 5 5

A 57, 58  
S 29

06/11/90  
W 17096  
G. Scott

FIRST TEN MONTHS STATUS REPORT  
1989-90 PLAN OF DEVELOPMENT AND OPERATIONS AND BUDGET  
LONG BEACH UNIT, WILMINGTON OIL FIELD  
LOS ANGELES COUNTY

At the end of the first ten months of the 1989-90 fiscal year (April 30, 1990), the Long Beach Unit Plan of Development and Operations and Budget remains unchanged at \$141,377,000. This includes administrative overhead costs and a \$4.1 million carry-over from the 1988-89 fiscal year. The expenditure trend projected for the current period indicates a total of \$134 million will be spent for the plan year, which is an increase of \$9 million over 1988-89 expenses. This is due to a \$4 million increase in drilling and development activity generated by City and State Lands staff to improve oil recovery, and a \$5 million increase in the Management Program. Two million dollars of this increase provided funds for paying the Department of Energy claim, which the Commission approved in the Second Modification of the Plan and Budget, Long Beach Unit.

During the first ten months, the Commission approved three modifications to the Plan and Budget. The First, Second, and Third Modifications revised Plan and Budget Exhibits C-3 and C-4 to reflect updated economic and production projections for the year as of the end of their respective first, second, and third quarters. A Plan Supplement for \$35,000 was approved to lease an electrostatic plotter for use in equity mapping, now completed as a result of the final equity solution, and one for \$37,500 was approved to purchase new radar units for marine vessels.

(ADDED 06/08/90)

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Fourteen requests by the Unit Operator (City of Long Beach) to transfer funds totalling \$2,684,000 between line item accounts within the existing budget were approved. Three other plan supplements were approved. One was to replace the Pier J filter plant influent lines, and the other was to inspect the oil shipping line flanges between J-6 and the Broadway and Mitchell shipping station.

Unit expenditures during the first ten months (83%) amounted \$107,440,000 or 76 percent of the original budget plus carry-over. A plot of these expenditures is shown on attached Exhibit 1. Projected spending for the next two months and the expenditures to date indicate a possible excess of \$7 million in the Budget for FY 89-90.

Oil production for the first ten month period amounted to 14.3 million barrels and gas production was 2.7 billion cubic feet. A plot of Unit oil rates is shown on Exhibit 2 with City of Long Beach projected rates through 1990-1991. At average values of \$15.14 per barrel of oil and \$2.34 per thousand cubic feet of gas, the total value of Unit production for the ten-month period was \$223.4 million. This is \$53.1 million more than the \$170.70 million revenue projected for ten months at the beginning of the budget year. The original projection was based on \$11.65 per barrel oil and \$2.34 per MCF gas. A plot of Unit oil prices is shown on Exhibit 3. Net income from operations during the ten-month period amounted to \$116.4 million. This is \$48.8 million above the \$67.62 million net income, including carry-over, which was projected for the entire budget year and is due to the fact that oil prices for the period averaged \$3.49 per barrel more than originally projected.

In addition, oil production for the ten-month period has averaged 47,103 BOPD, 303 BOPD above the budgeted projection. The relationship between oil prices and revenues to costs is shown on Exhibits 3 and 4. Oil prices have averaged approximately 30 percent above budgeted projections, but have recently dropped, averaging only \$12.79/bbl during April and May 1990. Net income for the year is projected to be above the budgeted figure due mainly to higher average oil prices and slightly lower expenditures than budgeted. The Commission staff has projected a net income of \$123 million dollars for the 1989-1990 FY assuming oil prices average \$11.65/barrel for the next two months, and oil production averaging for 6,000 B/D. The City also estimates oil prices to be at this level for the remainder of the fiscal year, but projects the total net income of the Unit slightly lower at \$122.6 million dollar.

(ADDED 06/08/90)

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Significant activities and accomplishments in each plan and budget program during the first ten months of the fiscal year were:

A. DRILLING AND DEVELOPMENT PROGRAM

Two drilling rigs were operated during the first ten months. Activity was on Islands White and Chaffee. Seven new producing wells and two new water injection wells were drilled, five producers and seven injectors were redrilled, three producers were recompleted to another zone, one producer recompleted and converted to injection, and six producers were converted to injection. Two attempts to redrill a producer were unsuccessful and resulted in a total expenditure of \$653,000. As part of increased emphasis on well abandonments, abandonments have increased from only four in 1988-89 to eighteen to date in FY 1989-90. Nine wells (4 producers and 5 injectors) were abandoned to the surface casing shoe. Nine more wells (3 producers, 6 injectors) were permanently abandoned. The drilling rig was used to abandon three of the above wells and the balance of the abandonment work was done with a production hoist. Drilling activity was in the Ranger, Terminal East, Upper Terminal, Lower Terminal Zones, and UP Ford Zones. Initial oil production rates of 1990 B/D were obtained from this work which reduced the rate of the production decline in the Unit. The staff has identified more economic opportunities, and an increase in drilling and development activity will require the activation of a third drilling rig in FY 1990-91. Drilling operations are scheduled to commence on Island Grissom with the third rig.

The adjusted budget for the Drilling and Development Program on April 30, 1990 was \$20,504,000. Funds expended were \$15,239,000 (74.3%). A plot of monthly expenditures is shown on Exhibit 5.

B. OIL AND GAS PRODUCTION PROGRAM

The Unit produced 14.319 million barrels of oil and 2,704 million cubic feet of gas during the first ten months. Average production rates were 47,103 barrels of oil per day and 8,895 thousand cubic feet of gas per day versus budgeted projected rates of 46,800 B/D oil and 8,457 MCF/D gas. Expenditures for the ten-month period plotted as dollars per barrel of oil produced are shown on Exhibit 6.

(ADDED 06/08/90)

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The principal function of this program is the production of fluids. Gross production for the period was 145.55 million barrels for an average of 478,770 B/D. The City projected rate was 476,747 B/D. The gross rates and program expenditures plotted as dollars per barrel of gross fluids are shown on Exhibit 7. The gross trend is upward, with dollars per barrel trending slightly upward. The upward trend in active producing wells (583 on June 30, 1989, 584 on January 31, 1990 and 607 on April 30, 1990) is shown on Exhibit 8 and is a change from the declining trend established during the 1988-89 fiscal year. The future trend will depend on oil prices, well failure rate and water cut increase, but is expected to increase because of the addition of a third drilling rig for the 1990-91 FY. The City of Long Beach, as stated in their five-year plan, is projecting a moderate upward trend during the 1990-91 period, anticipating an average of 590 active producing wells during the year.

Major non-routine projects recently completed include the installation of piping for two recently installed 30,000 barrel oil storage tanks at the Pier J-6 site. These tanks are expected to be placed in service soon. Inspection of oil shipping line flanges between the Pier J-6 site and the Broadway and Mitchell shipping station, and upgrading the Broadway and Mitchell/Pier J electrical wiring is nearly completed. Scheduled island shut downs for complete electrical maintenance has been done on Islands White and Grissom. Maintenance work for Islands Freeman and Chaffee and Pier J are also scheduled.

The adjusted budget for the Oil and Gas Production Program was increased \$3,640,000 by carry-overs to \$60,205,000 of which \$44,045,000 (73.2%) were expended at the end of the first ten months. Anticipated expenditures for this program, however, are expected to fall below the adjusted budget figure, and are projected to amount to \$55,675,000 by year end. A plot of monthly expenditures is shown on attached Exhibit 9.

C. ENHANCED RECOVERY AND STIMULATION PROGRAM

No funds were budgeted for 1989-90 and no activity took place in this program.

(ADDED 06/08/90)

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D. WATER INJECTION PROGRAM

A total of 156.3 million barrels of water were injected during the first ten months. The average rate was 514,188 barrels per day which was lower than the 518,783 B/D projected. Gross produced fluids amounted to 145.5 million barrels so the injection/production fluids volume ratio averaged 107.4 percent for the ten-month period. A plot of water injection rates and program expenditures as Dollars per barrel of water injected are shown on Exhibit 10. Injection rates are trending upward, while costs per barrel of water injected are virtually flat.

The budget for the Water Injection Program amounted to \$24,212,000 of which \$18,327,361 (75.7%) were expended at the end of the first ten months. A plot of monthly expenditures is shown on attached Exhibit 11.

E. MANAGEMENT PROGRAM

The major portion of this program consists of expenditures for salaries, benefits and expenses of the field Contractor, management and administrative personnel, engineering and consultant services, data processing equipment purchases and operating costs, office expenses including rental, supplies and services, and the Unit Operator's billable costs. The computer reservoir modeling program initiated in 1985 is continuing and has resulted in the identification of many opportunities for field development and contributed significantly to a successful drilling and development program over the last two years. Costs for the modeling have been cut from monthly expenditures of over \$100,000/mo. to current expenditures of \$27,000/mo. through the purchase of computer equipment and acquiring in-house expertise. Other significant items include Unit equity expense, special management projects, townlot participation administration and special studies related to Unit waste management and disposal. A plot of the Management Program expenditures expressed as dollars per barrel of oil is shown on Exhibit 12. The trend of dollars per barrel of oil for this program is upward.

One major project which is now 80 percent complete is taking place on Island Chaffee, where the transite fire line system is being replaced with plastic-coated steel line.

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The adjusted budget as of April 30, 1990 was \$23,348,000 for the Management Program of which is \$17,369,000 (74.4%) were expended during the first ten months. A plot of monthly expenditures is shown on Exhibit 13.

**F. TAXES, PERMITS AND LAND RENTAL PROGRAM**

The budget funds for the Taxes, Permits and Land Rental Program on April 30, 1990 amounted to \$15,108,000 which \$12,236,00 (81.0%) were expended. The major cash outflow in this program occurs with mining rights tax payments in December and April of the budget year. Expenditures for the fiscal year in this program are currently projected to be approximately 86% of the amount originally budgeted. A plot of program expenditures is shown on Exhibit 14.

A summary of Long Beach Unit 1989-90 Plan and Budget activity during the first ten months ending April 30, 1990 (in thousands of dollars) is:

<u>Program</u>	<u>Original Budget**</u>	<u>Adjusted* Budget</u>	<u>Expenditures* to 4/30/90 (83.3%)</u>
A. Drilling and Development	\$20,504	\$20,504	\$15,239 (74.3%)
B. Oil and Gas Production	\$60,205	\$60,205	\$44,045 (73.2%)
C. Enhanced Recovery and Stimulation	- 0 -	- 0 -	- 0 -
D. Water Injection	\$24,212	\$24,212	\$18,327 (75.7%)
E. Management	\$21,348	\$23,348	\$17,369 (74.4%)
F. Taxes, Permits and Land Rentals	<u>\$15,108</u>	<u>\$13,108</u>	<u>\$12,236 (81.0%)</u>
Totals	<u>\$141,377</u>	<u>\$141,377</u>	<u>\$107,440 (76.0%)</u>

\*Includes Administrative Overhead Costs

\*\*Includes Administrative Overhead Costs and \$40,056,000 1988-89 Carry-Over

(ADDED 06/08/90)

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AB 884: N/A.

- EXHIBITS:
1. Total Budget Expenditures.
  2. Oil Production Rate.
  3. Oil Price and Costs.
  4. Oil Revenue and Costs.
  5. Drilling and Development Program Expenditures (Program A).
  6. Program B Costs Dollars Per Barrel Oil.
  7. Program B Costs Dollars Per Barrel Gross Fluid.
  8. Producing Well Count.
  9. Oil and Gas Production Program Expenditures (Program B).
  10. Program D Costs Dollars Per Barrel Injected Water.
  11. Water Injection Program Expenditures (Program D).
  12. Program E Costs Dollars Per Barrel Oil.
  13. Management Program Expenditures (Program E).
  14. Taxes, Permits and Land Rental Program Expenditures (Program F).

(ADDED 06/08/90)

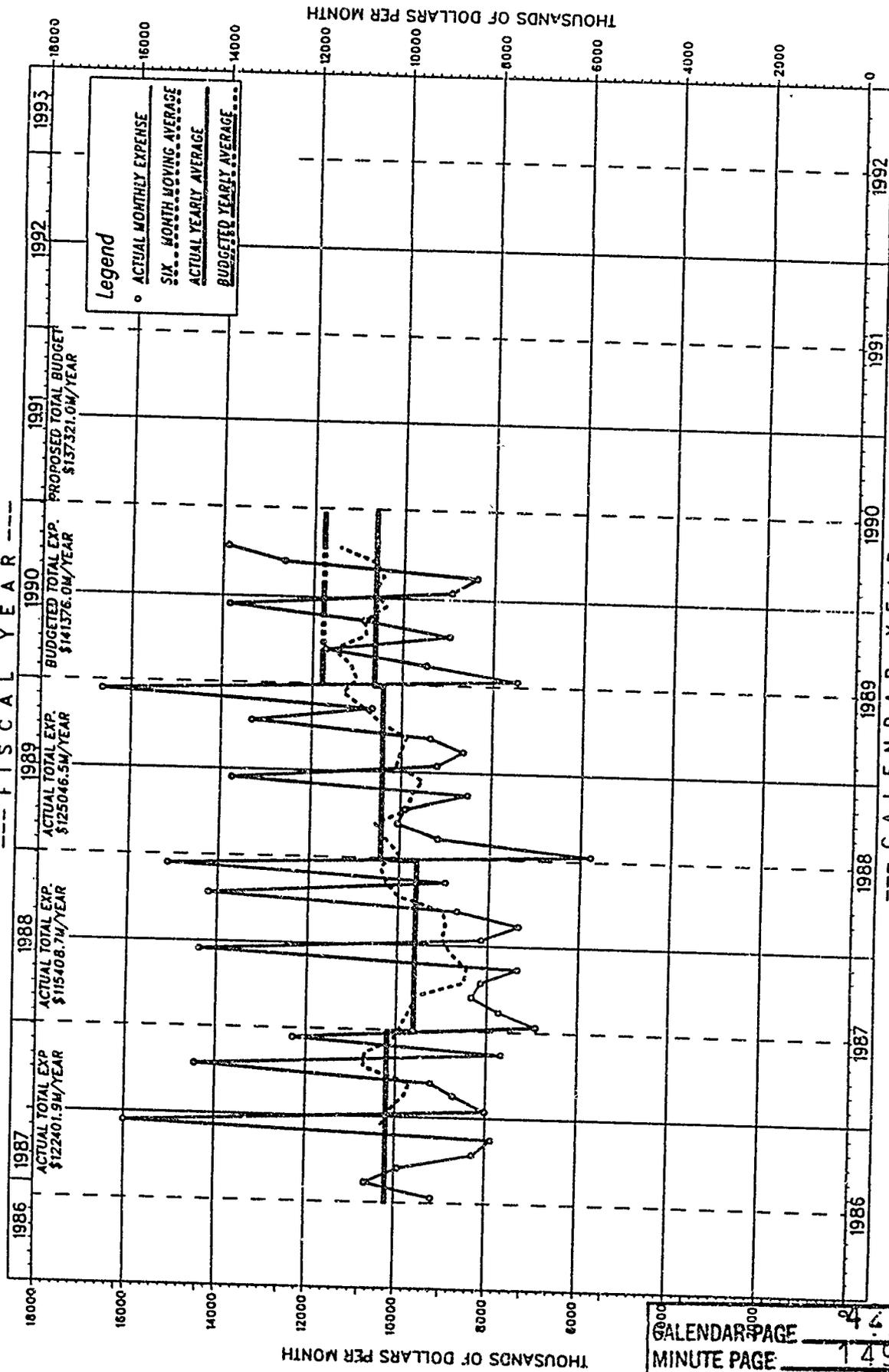
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# L O N G B E A C H U N I T

TOTAL BUDGET -- INCLUDING ADMIN. OVERHEAD

Exhibit I



**Legend**

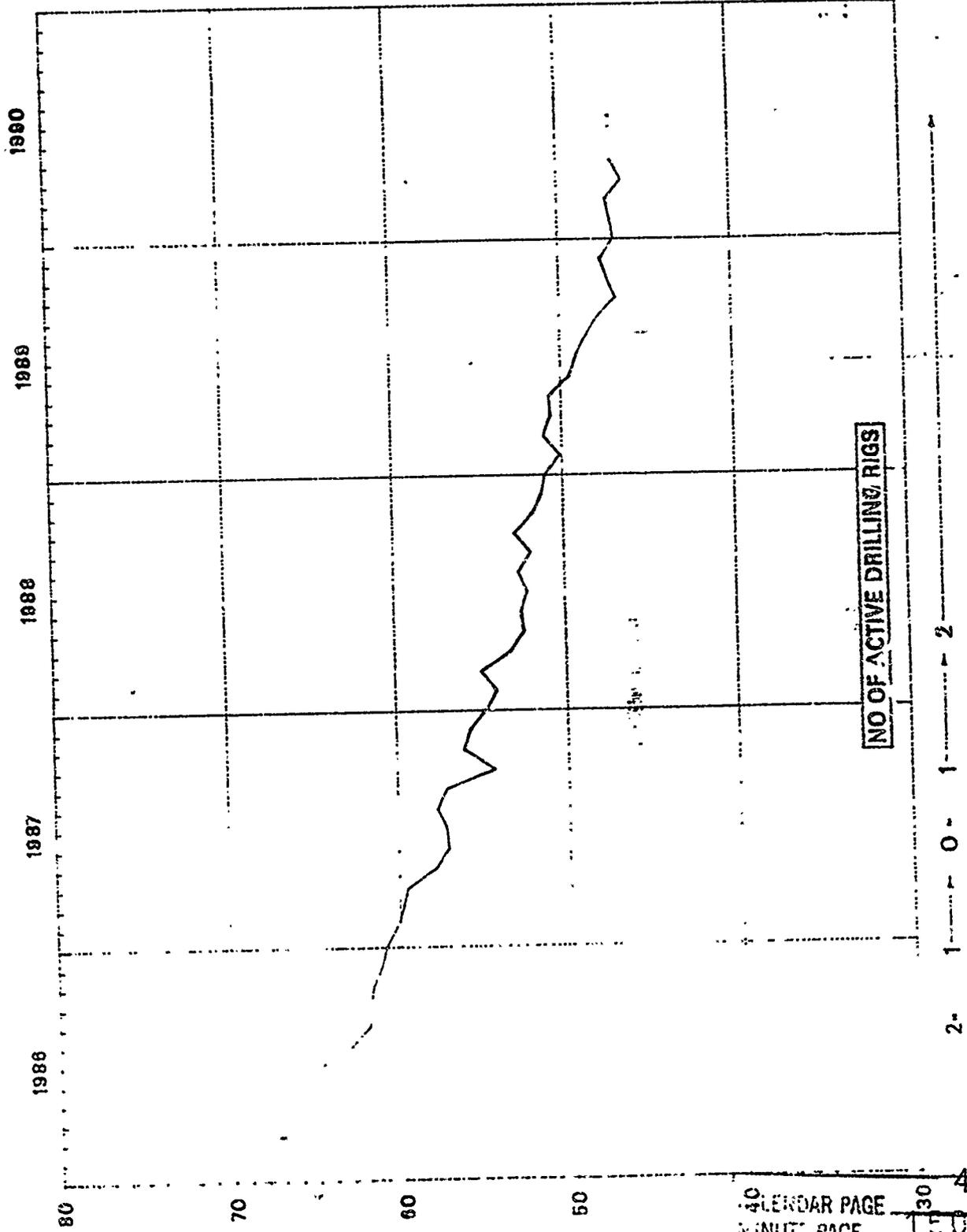
- ACTUAL MONTHLY EXPENSE
- ..... SIX MONTH MOVING AVERAGE
- ACTUAL YEARLY AVERAGE
- BUDGETED YEARLY AVERAGE

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EXHIBIT 2

# LONG BEACH UNIT OIL PRODUCTION RATE



NO OF ACTIVE DRILLING RIGS

2- 1 - 0 - 1 - 2

June 7 1990

NET OIL PRODUCTION RATE - 1000 B/D

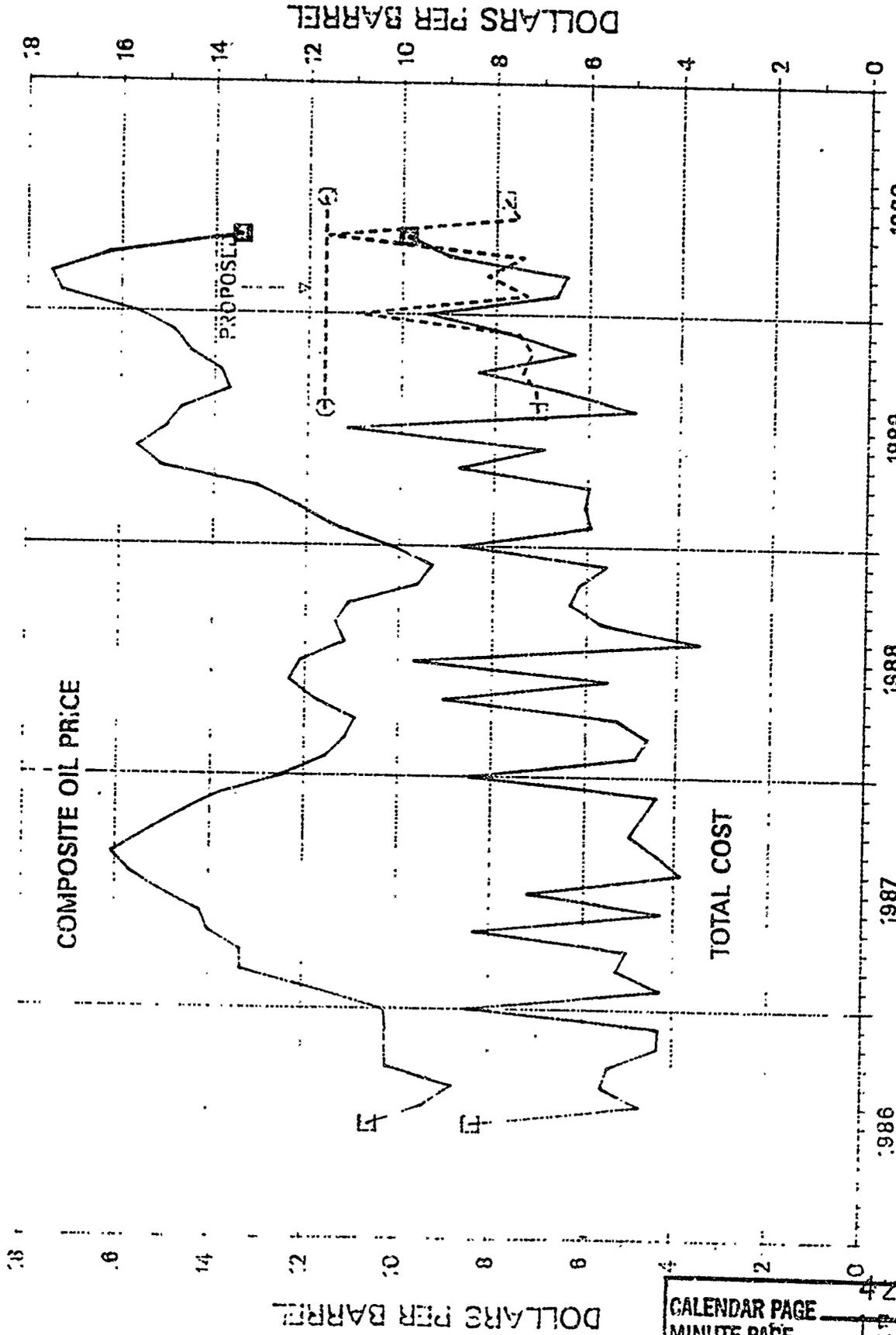
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EXHIBIT 3

# LONG BEACH UNIT

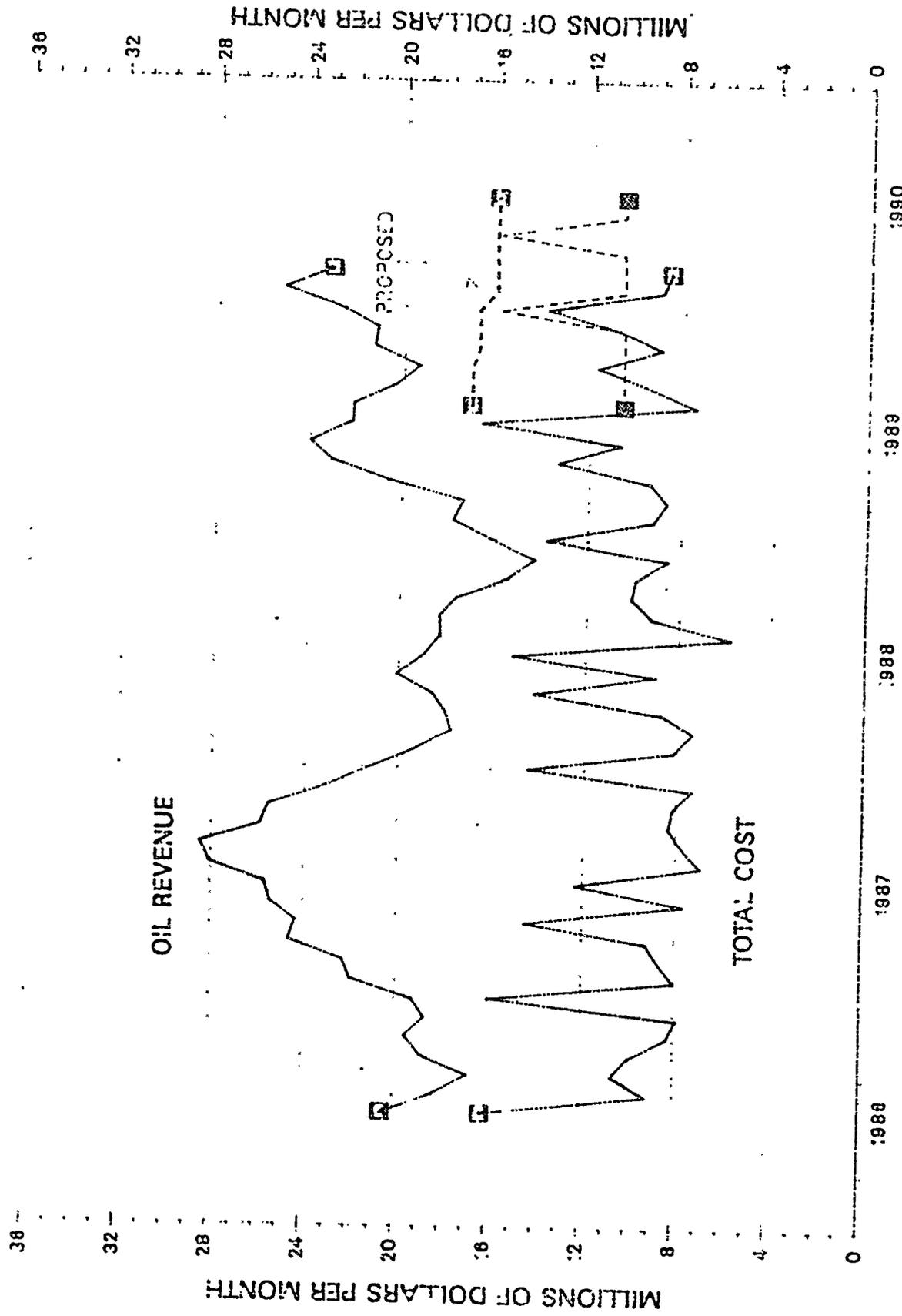


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EXHIBIT 4

# LONG BEACH UNIT

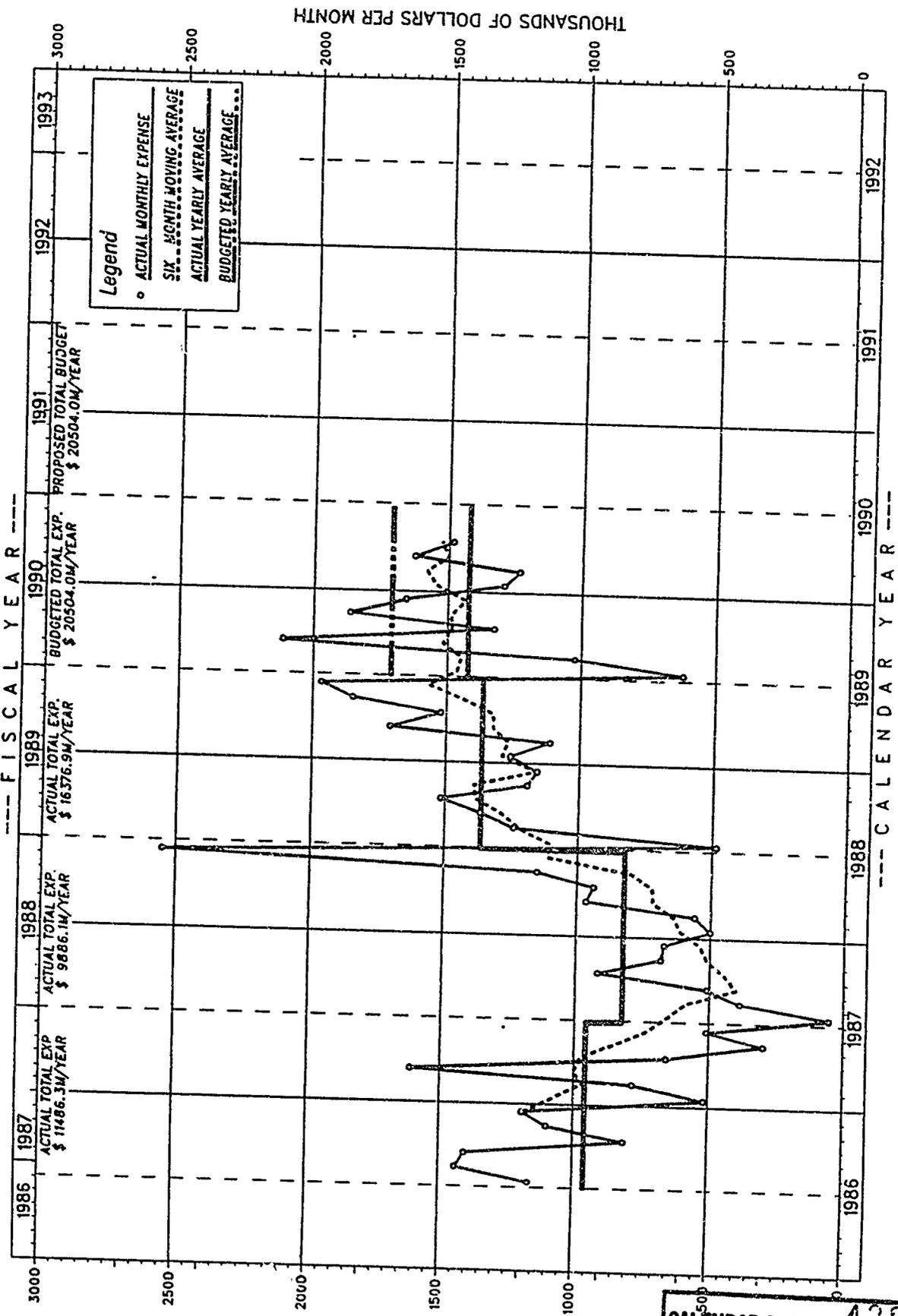


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**LONG BEACH UNIT**  
**DRILLING & DEVELOPMENT PROGRAM**

Exhibit 5



THOUSANDS OF DOLLARS PER MONTH

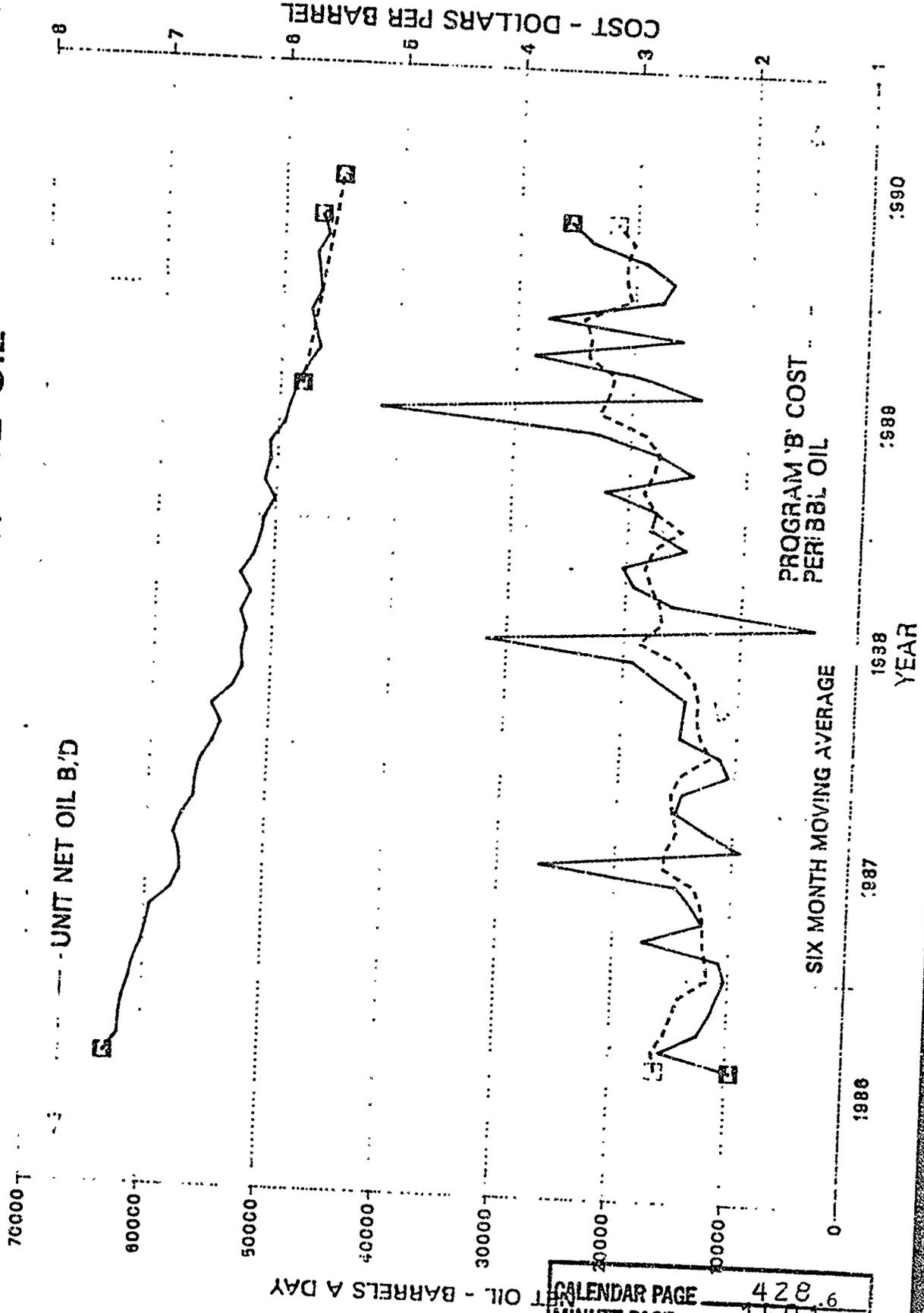
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# OIL & GAS PRODUCTION PROGRAM COSTS EXPRESSED AS \$/BBL OIL

EXHIBIT 6

LONG BEACH UNIT



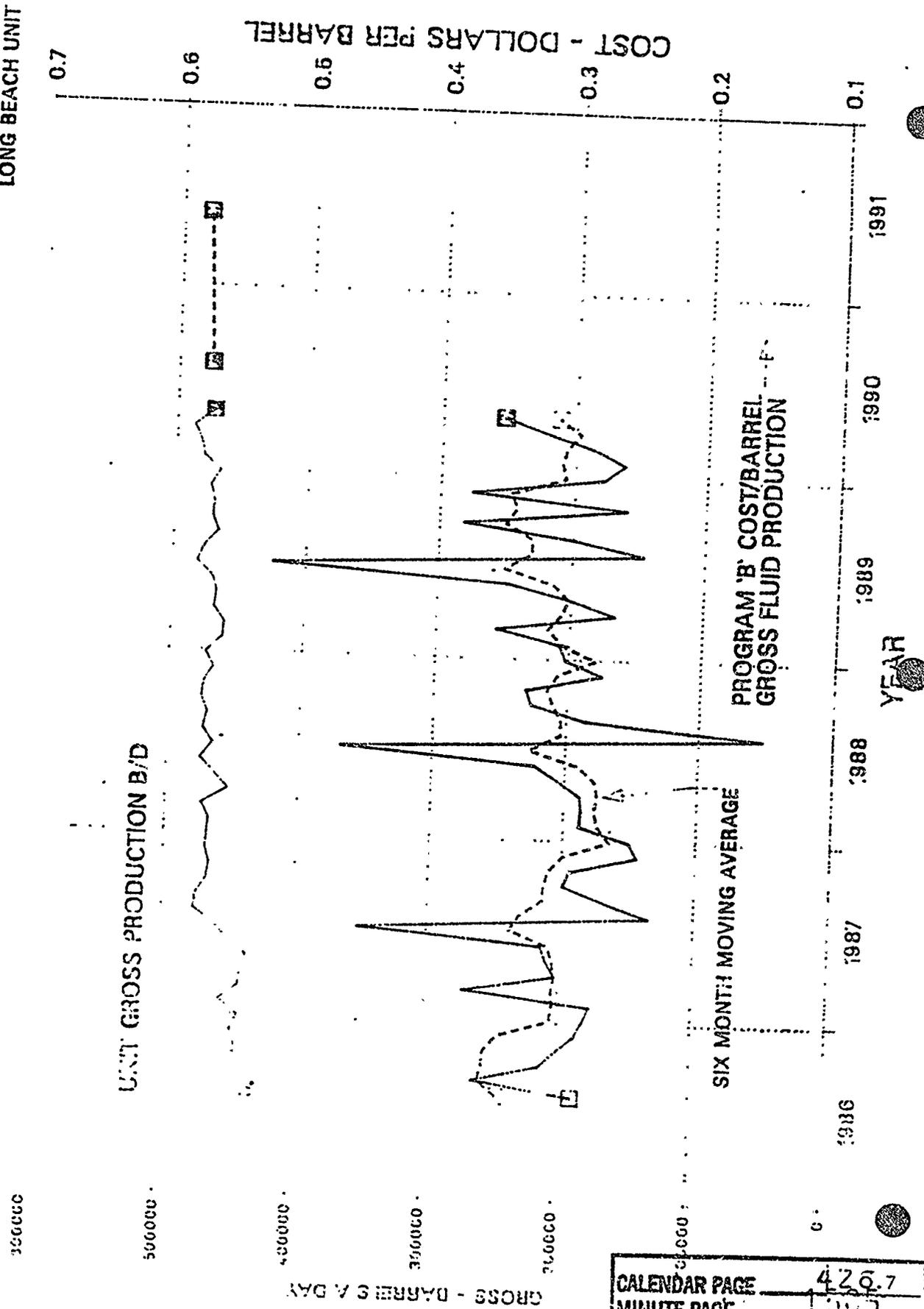
NET OIL - BARRELS A DAY

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# OIL & GAS PRODUCTION PROGRAM COSTS EXPRESSED AS \$/BBL GROSS FLUID

EXHIBIT 7

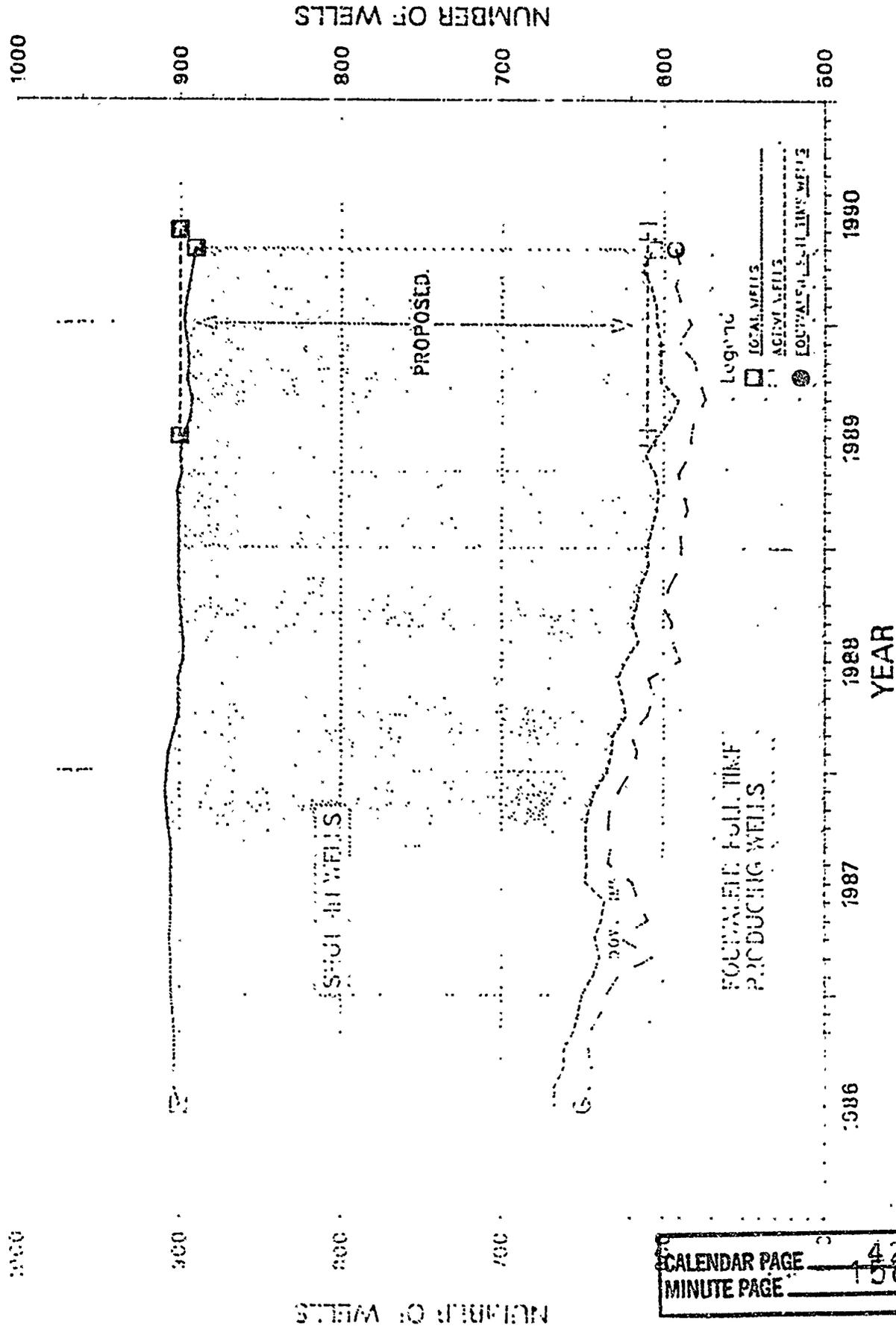
LONG BEACH UNIT



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# LONG BEACH UNIT PRODUCING WELLS

EXHIBIT 3



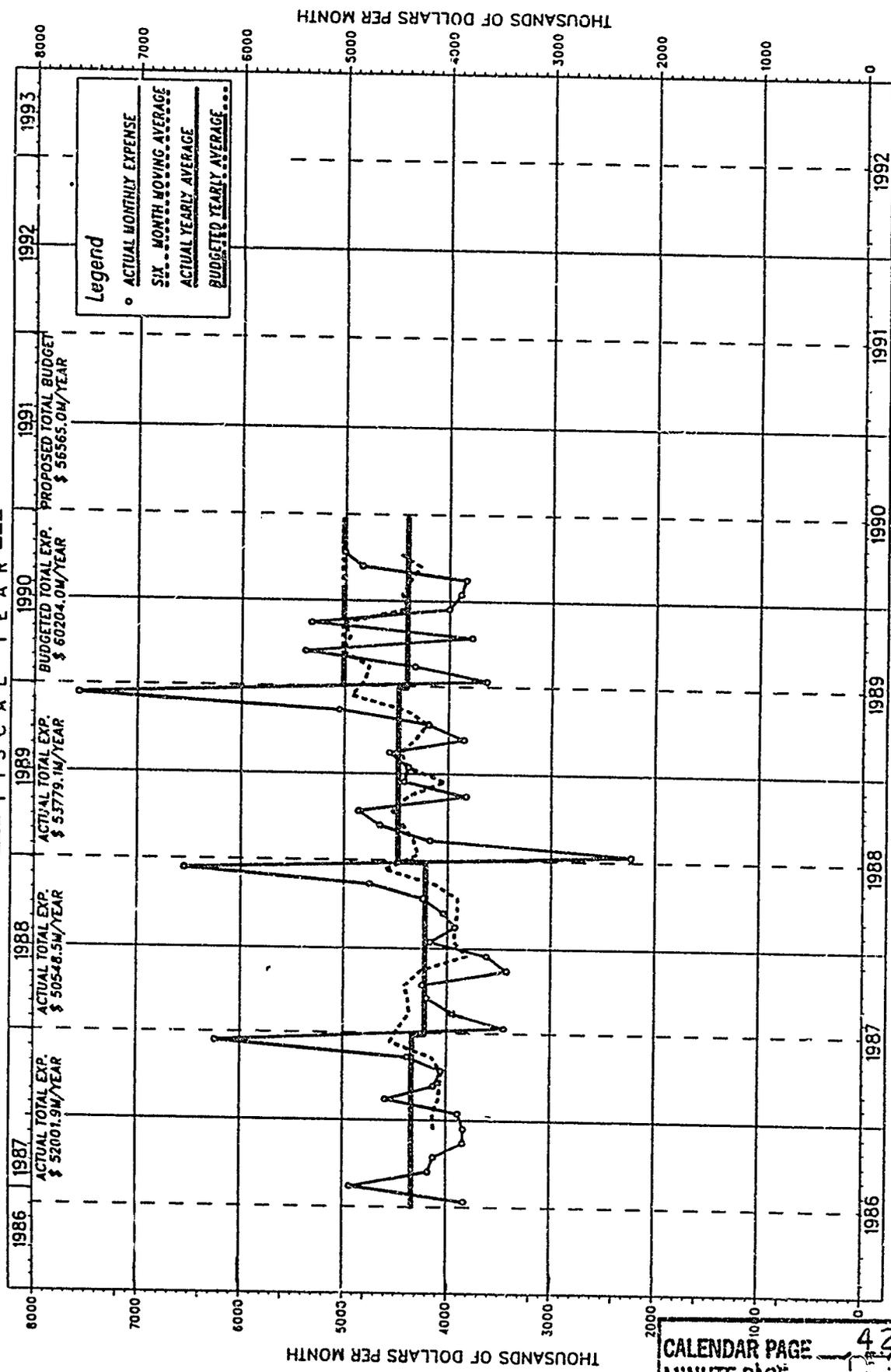
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June 7 1990

OIL & GAS PRODUCTION PROGRAM  
 LONG BEACH UNIT  
 TOTAL

Exhibit 9

PROGRAM B  
 FISCAL YEAR



THOUSANDS OF DOLLARS PER MONTH

THOUSANDS OF DOLLARS PER MONTH

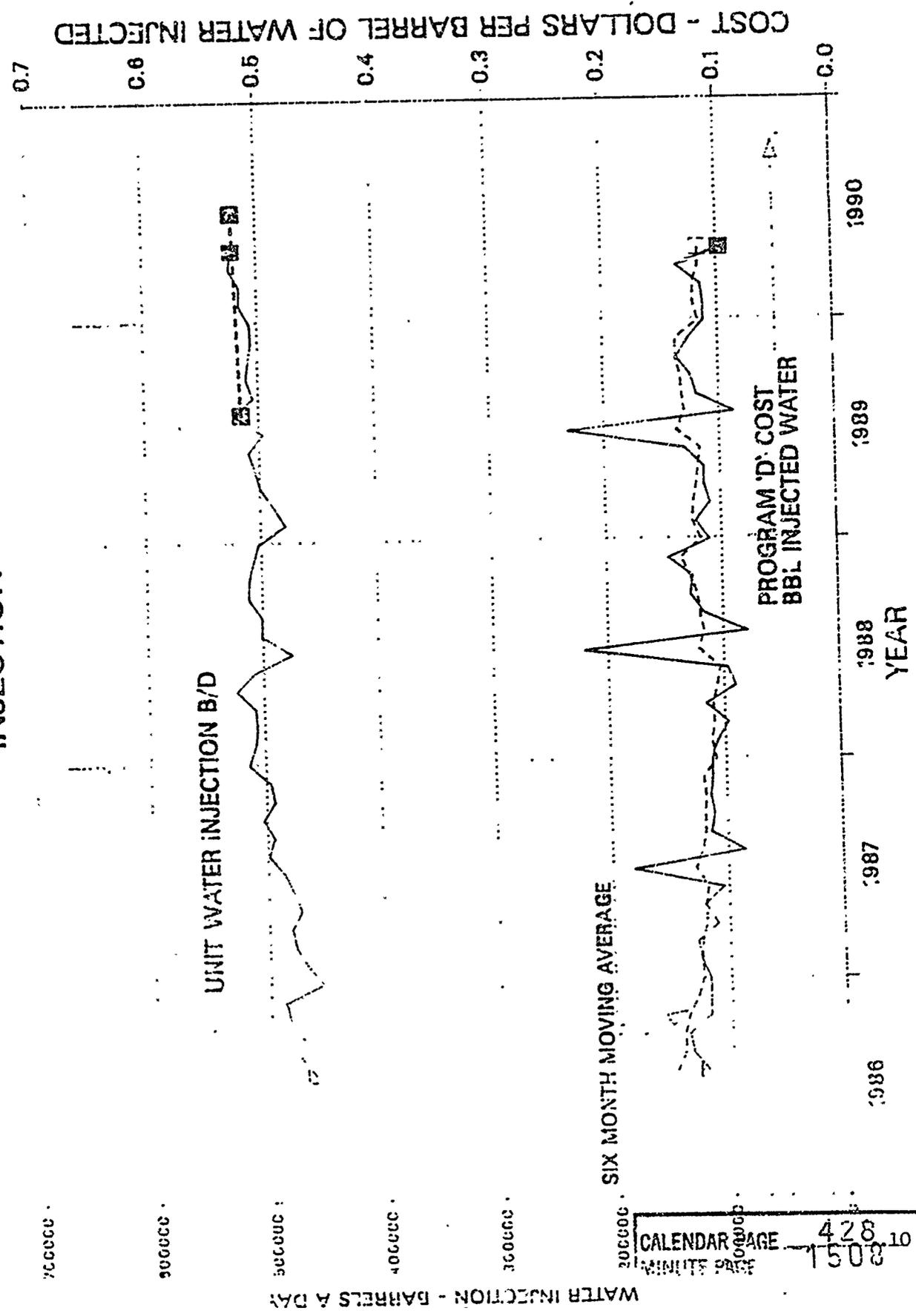
Legend  
 ○ ACTUAL MONTHLY EXPENSE  
 ..... SIX MONTH MOVING AVERAGE  
 - - - - - ACTUAL YEARLY AVERAGE  
 \_\_\_\_\_ BUDGETED YEARLY AVERAGE

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# WATER INJECTION PROGRAM COSTS EXPRESSED AS \$/BBL OF INJECTED WATER INJECTION

LONG BEACH UNIT



Jun 7 1990

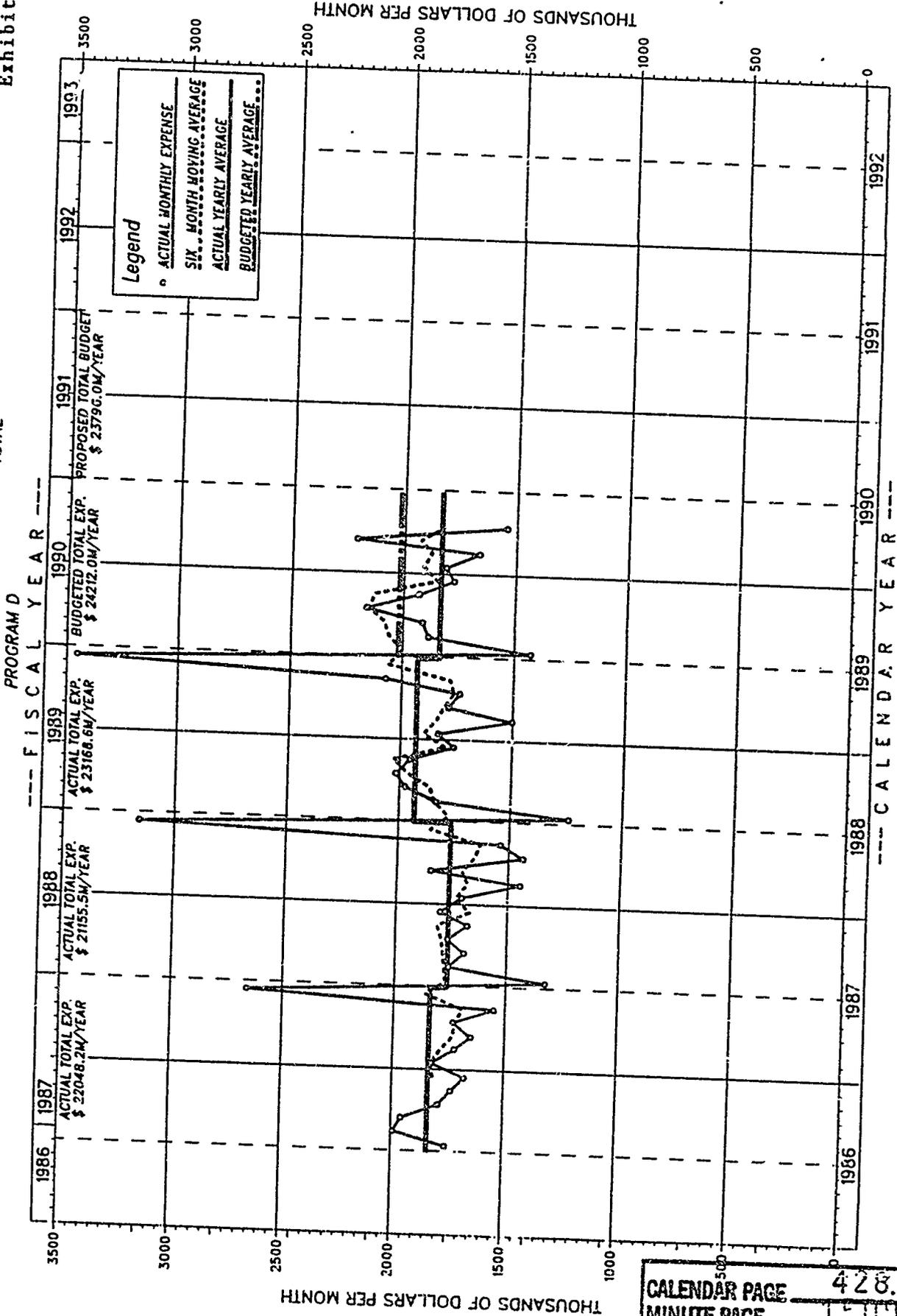
WATER INJECTION - BARRELS A DAY

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WATER INJECTION PROGRAM  
 LONG BEACH UNIT  
 TOTAL

Exhibit II

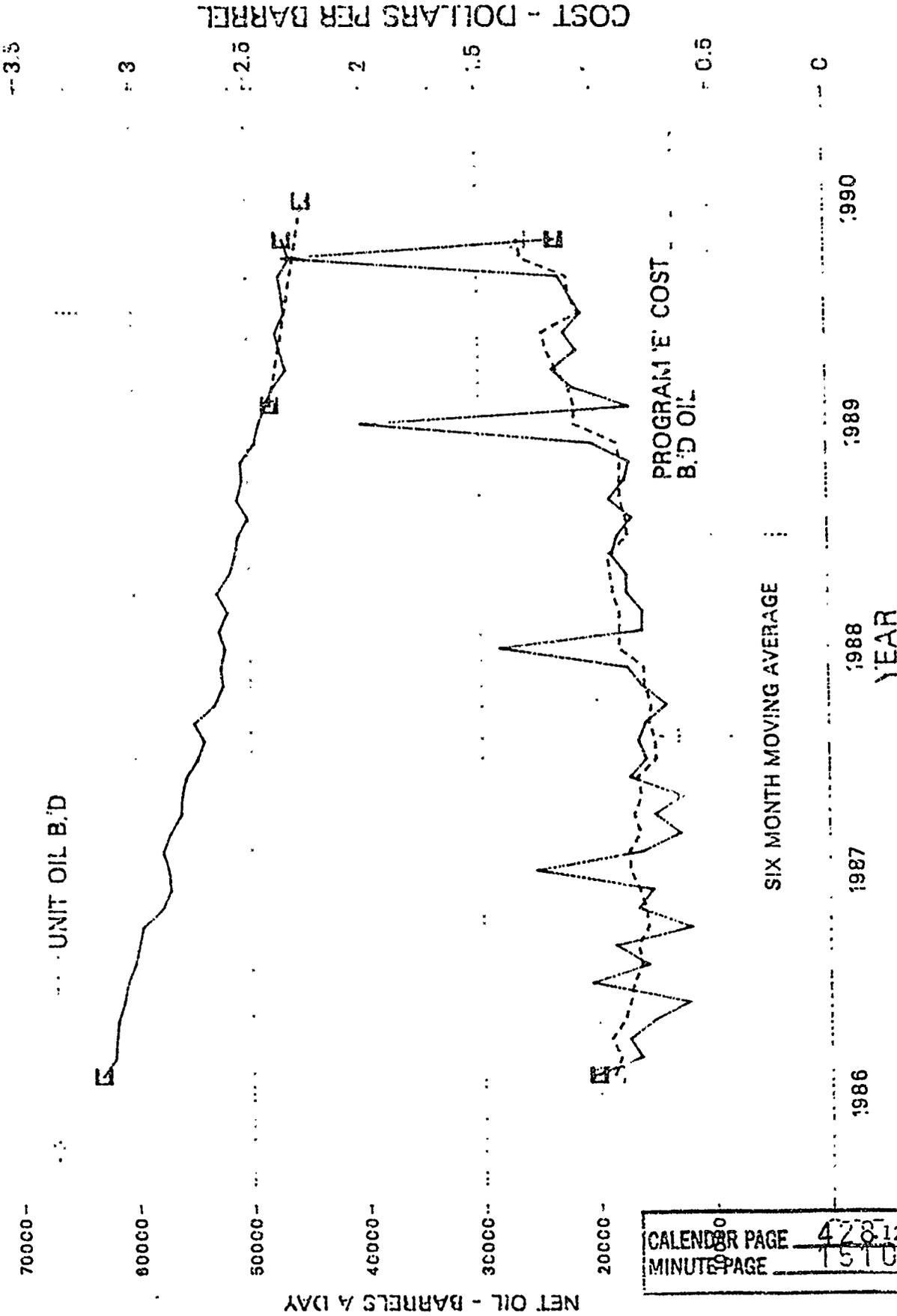


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# MANAGEMENT PROGRAM COSTS EXPRESSED AS \$/BBL OIL

LONG BEACH UNIT

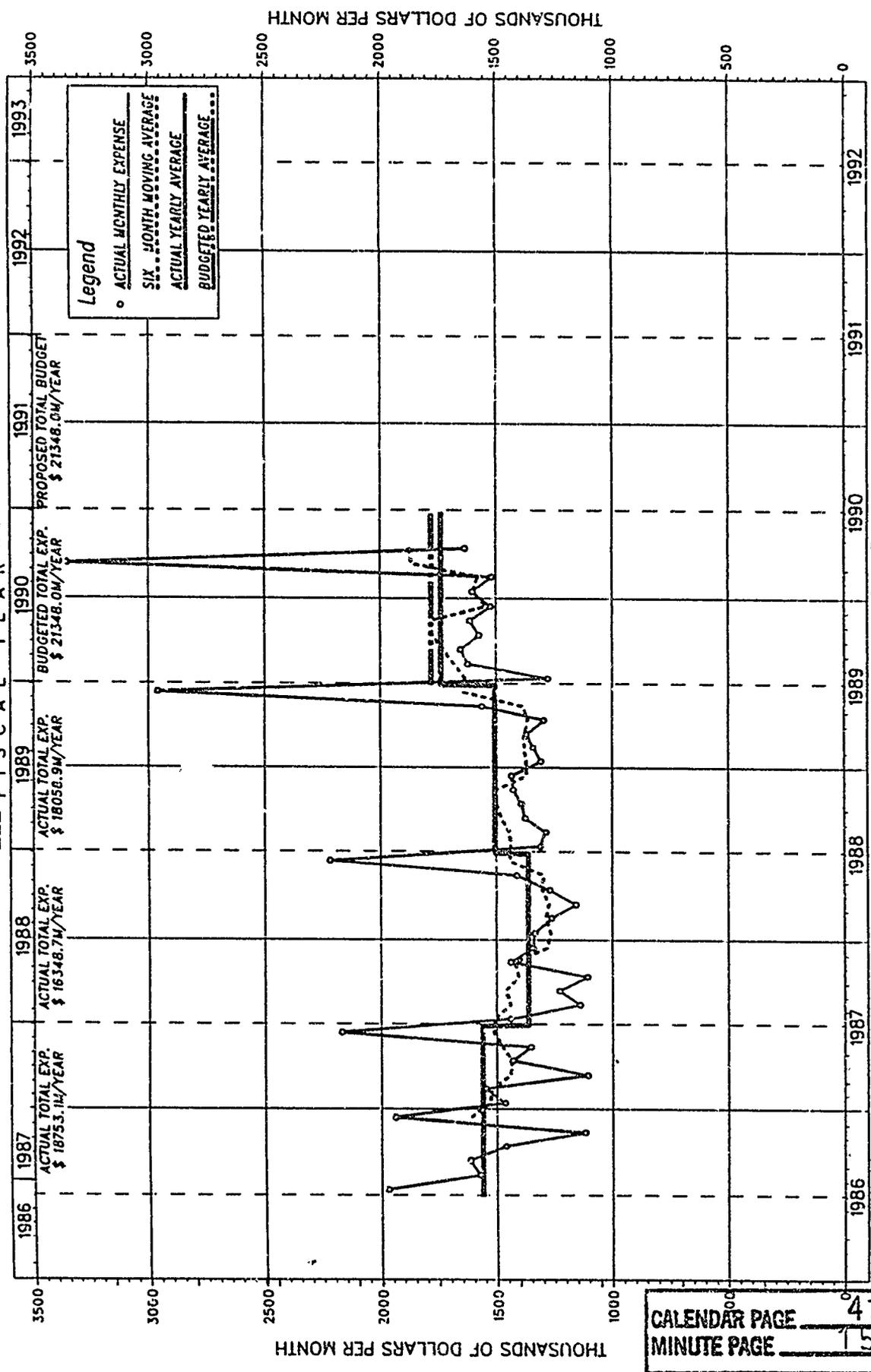


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MANAGEMENT PROGRAM  
 L O N G B E A C H U N I T  
 TOTAL

Exhibit 13

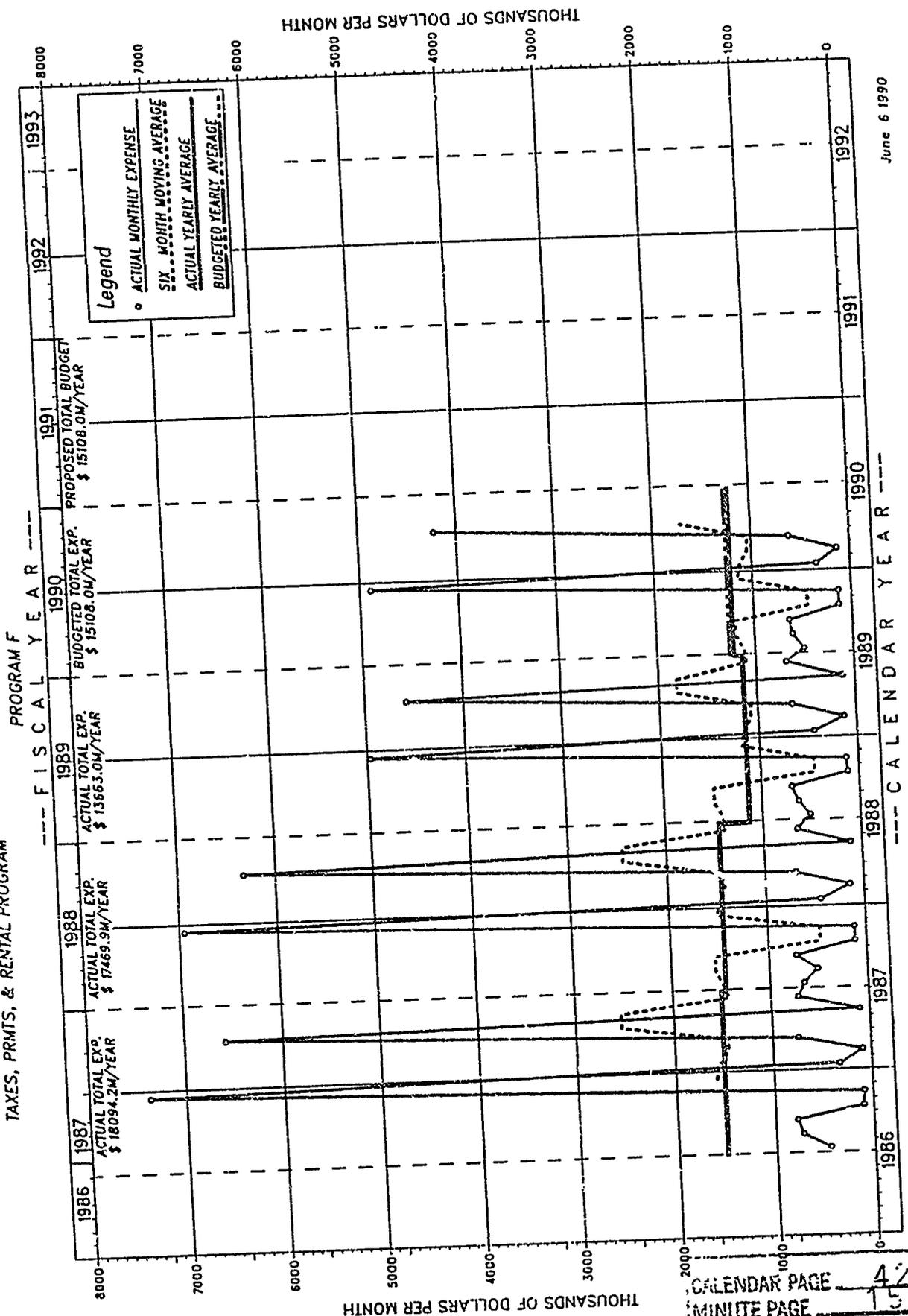
PROGRAM E  
 --- F I S C A L Y E A R ---



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LONG BEACH UNIT  
TAXES, PRMITS, & RENTAL PROGRAM



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