

MINUTE ITEM
This Calendar Item No. 42
was approved as Minute Item
No. 42 by the State Lands
Commission by a vote of 1
to 0 at its 9/14/88
meeting.

INFORMATIVE
CALENDAR ITEM

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42

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S 29

FINAL REPORT AND CLOSING STATEMENT
1987-88 PLAN OF DEVELOPMENT AND OPERATIONS AND BUDGET
LONG BEACH UNIT, WILMINGTON OIL FIELD, LOS ANGELES COUNTY

The City of Long Beach, as Operator of the Long Beach Unit, has submitted a final report and closing statement for the Plan of Development and Operations and Budget of the Long Beach Unit for the period July 1, 1987 to June 30, 1988. This Final Report and Closing Statement, submitted in accordance with Part IV, E. 3 of the Plan and Budget, summarizes the work accomplished under the Plan and reconciles the funds expended pursuant to the modified Budget.

The 1987-88 Plan and Budget, as originally submitted by the City of Long Beach and approved by the Commission, amounted to \$130,411,000. Funds carried over from the 1986-87 Plan and Budget to complete projects in progress on June 30, 1987 increased the Budget to \$132,116,000. With Commission approval, the Plan and Budget was modified seven times during the course of the Plan year. The First Modification was the only one to alter the Plan and Budget amount, reducing it by \$99,000 to \$132,017,000. Final expenditures for the Plan and Budget year amounted to \$115,408,710 (87.4%). Of the \$16,608,230 unexpended balance, \$3,394,000 were carried over into the 1988-89 Plan and Budget to complete projects in progress on June 30, 1987. The \$13,214,230 (10.0%) surplus resulted mainly from (a) electrical energy cost savings because Southern California Edison lowered its rate charges during the year, (b) start up of a second drilling rig, originally scheduled for mid-year, was deferred until March 1988 and (c) the overall budget was overfunded in some areas. The plot of monthly unit expenditures throughout 1986-87 and 1987-88 is shown on attached Exhibit 1.

-1-

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During the 1987-88 fiscal year, oil production totalled 20.04 million barrels and gas production was 3.42 billion cubic feet. At an average of \$13.20 per barrel of oil and \$2.49 per thousand cubic feet of gas, the total value of Long Beach Unit production was \$273.4 million. After deduction of \$115.4 million expenditures, remaining net income to the Unit was \$158 million. Production figures and economic data throughout the year are shown on Exhibits C-3 and C-4 of the City's final report and closing statement, which is attached as Exhibit "A". Graphs prepared by the Commission staff showing the trend in electrical energy costs, oil production rate, oil revenue and field operation cost, composite oil price and oil production cost per barrel in the Long Beach Unit during 1986-87 and 1987-88 are shown on attached Exhibits 7, 8, 9 and 10.

Significant accomplishments during the 1987-88 Plan and Budget year were:

A. DRILLING AND DEVELOPMENT PROGRAM

Seven new wells were drilled during the year, 6 producers and 1 injector. Ten shut-in wells were redrilled, 4 producers and 6 injectors. Six active producing wells were converted to injection. No wells were converted from injection to production. All drilling activity was in the Ranger, Upper and Lower Terminal and UP-Ford Zones.

The adjusted budget provided \$13,082,000 for the Drilling and Development Program of which \$9,886,140 (75.6%) were expended and \$770,000 (5.9%) were carried over into the 1988-89 Plan and Budget to complete two new wells being drilled in June 1988. The plot of monthly expenditures through 1986-87 and 1987-88 is shown on attached Exhibit 2.

B. OIL AND GAS PRODUCTION PROGRAM

The Long Beach Unit produced 20.04 million barrels of oil and 3.70 billion cubic feet of gas during the plan year. The average rates were 54,743 barrels of oil and 10,120 thousand cubic feet of gas per day versus predictions at the beginning of the year of 51,800-61,750 B/D oil and 10,175-12,200 MCF/D gas.

Major non-routine projects completed or in progress by the end of the plan year included replacement of a 12-inch diameter sub-sea oil line between Islands White and Grissom, removal of a deteriorated 87,000 barrel oil storage tank on Pier J and replacement with two 30,000

CALENDAR ITEM NO. 42 (CONT'D)

storage tanks, installation of a gas compressor station on Island Grissom, installation of above ground diesel storage tanks on each island and Pier J and paving the J-3 drillsite.

The adjusted budget provided \$56,226,000 for the Oil and Gas Production Program of which \$50,548,469 (89.9%) were expended and \$1,329,000 (2.4%) were carried over into the 1988-89 Plan and Budget. The plot of monthly expenditures through 1986-87 and 1987-88 is shown on Exhibit 3 attached.

C. ENHANCED RECOVERY PROGRAM

No funds were budgeted and no activity took place in this program during the 1987-88 Plan year.

D. WATER INJECTION PROGRAM

A total of 184 million barrels of water were injected during the Plan year. The average rate of injection was 502,744 barrels per day which was higher than the 417,000 - 495,000 B/D range projected at the beginning of the Plan year. This was due to increased emphasis on maintaining appropriate reservoir voidage ratio.

Major non-routine projects completed or underway during the Plan year were the purchase of three replacement water injection motors, seven injection pump motor controllers, programmable injection pump monitors for all islands and the Pier J injection sites and the installation of covers on all skim basins for compliance with regional air quality regulations.

The adjusted budget provided \$26,015,000 for the Water Injection Program of which \$21,155,498 (82.5%) were expended and \$953,000 (3.7%) were carried over into the 1988-89 Plan and Budget. The plot of monthly expenditures through 1986-87 and 1987-88 is shown on attached Exhibit 4.

E. MANAGEMENT PROGRAM

The majority of this program is for salaries, engineering services unit operator billable costs, and office services. Investment funds expended were primarily for the purchase of new computer equipment and related data processing hardware and software items. Major items included purchase of a computer aided drafting system, equipment and software for reservoir modeling studies and

CALENDAR ITEM NO. 42 (CONT'D)

development of a computerized maintenance system for greater efficiency in the field contractor's operations.

The adjusted budget provided \$18,934,000 for the Management Program of which \$16,348,734 (86.3%) were expended and \$342,000 (1.8%) were carried over into the 1988-89 Plan and Budget. The plot of monthly expenditures through 1986-87 and 1987-88 is shown on attached Exhibit 5.

F. TAXES, PERMITS AND LAND RENTAL PROGRAM

The adjusted budget provided \$17,760,000 for taxes, permits and land rentals. Actual expenditures amounted to \$17,469,868 (98.4%). The plot of monthly expenditures through 1986-87 and 1987-88 is shown on attached Exhibit 6.

A summary of the 1987-88 Plan and Budget activity (in thousands of dollars) is:

<u>Program</u>	<u>Approved Budget*</u>	<u>Expenditure</u>	<u>Carry-over to '88-89</u>
A. Drilling and Development	\$ 13,082	\$ 9,886	\$ 770
B. Oil and Gas Production	56,226	50,548	1,329
C. Enhanced Recovery & Stimulation	-0-	-0-	-0-
D. Water Injection	26,015	21,156	953
E. Management	18,934	16,349	342
F. Taxes, Permits & Land Rentals	17,760	17,470	-0-
Totals:	\$132,017	\$115,409	\$3,394

*Includes carry-in from '86-'87, modifications, plan supplements and fund transfers between budget line items.

The Commission staff has reviewed the City's Final Report and Closing Statement and finds it to be an accurate summary of budget activity for the Long Beach Unit during the 1987-88 Plan and Budget year.

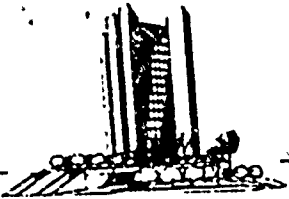
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CALENDAR ITEM NO. 12 (CONT'D)

EXHIBITS:

- A. City's Final Report and Closing Statement.
 - 1. Total Budget Expenditure.
 - 2. Drilling and Development Program Expenditures.
 - 3. Oil and Gas Production Program Expenditures.
 - 4. Water Injection Program Expenditures.
 - 5. Management Program Expenditures.
 - 6. Taxes, Permits, and Rental Program Expenditures.
 - 7. Electrical Energy Costs.
 - 8. Oil Production Rate.
 - 9. Oil Revenue/Total Cost.
 - 10. Composite Oil Price/Total Cost.
- N/A.

AB 884:



CITY OF LONG BEACH

DEPARTMENT OF OIL PROPERTIES

333 WEST OCEAN BOULEVARD • LONG BEACH, CALIFORNIA 90802 • (213) 500-6354

August 15, 1988

REVISED

Ms. Claire T. Dedrick
Executive Officer
State Lands Commission
245 West Broadway - Suite 425
Long Beach, California 90802

Subject: TRANSMITTAL OF FINAL REPORT AND CLOSING
STATEMENT OF THE PLAN OF DEVELOPMENT AND
OPERATIONS AND BUDGET, LONG BEACH UNIT
(JULY 1, 1987 THROUGH JUNE 30, 1988)

Dear Ms. Dedrick:

The City of Long Beach, as Unit Operator of the Long Beach Unit, and in accordance with Section 5 of Chapter 138, 1964 First Extraordinary Session, submits the Final Report and Closing Statement to the Plan of Development and Operations and Budget of the Long Beach Unit for the period July 1, 1987 through June 30, 1988. Also submitted are final Exhibits C-3 and C-4 for the 1987-1988 Plan Year.

Production Statistics

The average oil production rate during the 1987-1988 Plan Year, shown in Exhibit C-3, was 54,893 B/D, 1,896 B/D lower than the original estimate. The average water production rate during the 1987-1988 Plan Year was 414.1 MB/D, 20.9 MB/D above the original estimate. The water injection rate of 504.0 MB/D for the Plan Year was 19 MB/D above the original estimate.

Expenditures

Total expenditures during the 1987-1988 Plan Year, shown in Exhibit C-4, were \$115,409,000, \$16,608,000 less than the adjusted budget amount of \$132,017,000. A total of \$3,394,000 was carried-over into the 1988-1989 Plan Year with \$13,213,000 unexpended. Total Unit Income for the 1987-1988 Plan Year was \$157,978,000, which is \$18,457,000 more than estimated in the 1987-1988 Plan and Budget.

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Claire T. Dedrick
August 15, 1988
Page Two

Modifications

The total adjusted budget at the end of the 1987-1988 Plan Year on June 30, 1988 was \$132,017,000. The original budget was \$130,411,000. This was increased by the 1986-1987 carry-over of \$1,705,000 for a total budget of \$132,116,000. The First Modification reduced the budget by \$99,000. These funds were no longer necessary for specified waste clean-up cost. The First Modification also transferred funds to a new account, 52-969 Waste Disposal to handle liabilities associated with the use of certain disposal sites in prior periods. In addition, the First Modification allowed for the paving of the J-3 site. The Second Modification transferred funds to the Drilling and Development Program for the additional costs of operating a second drilling rig. The Fourth Modification transferred funds for mining rights taxes and land rental. The Sixth Modification allowed for the replacement of 87M1 with two 30,000 barrel tanks. Finally, the Third, Fifth, and Seventh Modifications revised Exhibits C-3 and C-4 in the First, Second and Third Quarterly Reviews, respectively.

Drilling and Development

During the 1987-1988 Plan Year, seven new wells and nine redrills were completed. The average net production per new oil well, including the oil equivalent of excess injection developed, was approximately 353 B/D. This oil production was at materially lower water rates and cuts than the Unit or pool averages.

Very truly yours,



Xenophon C. Colazas
Director

XCC:slg

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1987-1988 PLAN AND BUDGET

EXHIBIT C-3

BASIC DATA

	ACTUAL THIRD QUARTER 1987	ACTUAL FOURTE QUARTER 1987	ACTUAL FIRST QUARTER 1988	ACTUAL SECOND QUARTER 1988	TOTAL
OIL PRODUCTION (1000 BBL) (BBL/DA)	5,242 56,978	5,104 55,484	4,920 54,061	4,770 52,418	20,036
GAS PRODUCTION (1000 MCF) (MCF/DA)	994 10,804	942 10,242	869 9,544	899 9,878	3,704
WATER PRODUCTION (1000 BBL) (1000 BBL/DA)	38,227 415.3	37,866 411.5	37,286 409.7	37,790 415.3	151,169
WATER INJECTION (1000 BBL) (1000 BBL/DA)	45,891 498.8	46,149 501.6	46,227 508.0	45,737 502.6	184,004
OIL PRICE (\$/BBL)	\$15.71	\$13.69	\$11.21	\$12.10	
GAS PRICE ADJUSTED (\$/MCF OF TOTAL PRODUCED GAS)	\$2.25	\$2.25	\$2.18	\$2.27	

CITY OF LONG BEACH
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1987-1988 PLAN AND BUDGET

EXHIBIT C-4

ECONOMIC DATA

(DATA IN THOUSANDS OF DOLLARS)

	ACTUAL THIRD QUARTER 1987	ACTUAL FOURTH QUARTER 1987	ACTUAL FIRST QUARTER 1988	ACTUAL SECOND QUARTER 1988	TOTAL
ESTIMATED INCOME					
OIL INCOME	\$82,352	\$69,874	\$55,153	\$57,717	\$265,096
GAS INCOME	\$2,237	\$2,120	\$1,894	\$2,041	\$8,291
TOTAL INCOME	\$84,588	\$71,993	\$57,048	\$59,758	\$273,387
ESTIMATED EXPENDITURES					
DEVELOPMENT DRILLING PROGRAM	\$950	\$2,271	\$2,026	\$4,639	\$9,886
OIL AND GAS PRODUCTION PROGRAM	\$11,595	\$11,286	\$12,130	\$15,538	\$50,549
ENHANCED RECOVERY PROGRAM	\$0	\$0	\$0	\$0	\$0
WATER INJECTION PROGRAM	\$4,777	\$5,244	\$5,000	\$6,134	\$21,155
MANAGEMENT PROGRAM	\$3,807	\$3,889	\$3,752	\$4,901	\$16,349
TAXES, PERMITS AND LAND RENTAL PROGRAM	\$1,896	\$7,186	\$1,285	\$7,103	\$17,470
TOTAL EXPENDITURES	\$23,025	\$29,876	\$24,193	\$38,315	\$115,409
NET INCOME	\$61,563	\$42,117	\$32,855	\$21,443	\$157,978

CITY OF LONG BEACH
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ATTACHMENT TO EXHIBIT C-4
 PLAN AND BUDGET 1987-1988
 (THOUSANDS OF DOLLARS)

	ADJUSTED BUDGET	FINAL EXPEND.	CARRY OUT	SURPLUS
A. DRILLING & DEVELOPMENT PROGRAM:				
1. DRILLING & REDRILLING	\$12,578	\$9,506	\$740	\$2,332
ADMINISTRATIVE OVERHEAD	\$504	\$380	\$107	\$93
PROGRAM TOTAL:	\$13,082	\$9,886	\$847	\$2,425
B. OIL AND GAS PROD. PROGRAM				
1. OIL WELL REPAIRS:	\$15,653	\$14,139	\$0	\$1,514
2. FLUID LIFTING:	\$17,535	\$15,483	\$0	\$2,052
3. SUR. FLUID HANDLING:	\$6,150	\$5,387	\$648	\$115
4. GAS HANDLING:	\$980	\$879	\$0	\$101
5. PROD. MAINTENANCE:	\$13,739	\$12,719	\$630	\$390
ADMINISTRATIVE OVERHEAD	\$2,169	\$1,942	\$51	\$176
PROGRAM TOTAL:	\$56,226	\$50,549	\$1,329	\$4,348
C. EOR & STIMULATION PROGRAM:				
1. STIMULATION:	\$0	\$0	\$0	\$0
2. STEAM DRIVE:	\$0	\$0	\$0	\$0
ADMINISTRATIVE OVERHEAD	\$0	\$0	\$0	\$0
PROGRAM TOTAL:	\$0	\$0	\$0	\$0
D. WATER INJECTION PROGRAM:				
1. INJECTION WELL REPAIR:	\$5,827	\$4,003	\$64	\$1,760
2. WATER INJECTION SYSTEM:	\$19,265	\$16,406	\$852	\$2,007
ADMINISTRATIVE OVERHEAD	\$923	\$746	\$37	\$140
PROGRAM TOTAL:	\$26,015	\$21,155	\$953	\$3,907

REVISED BY THE
 CITY OF LONG BEACH
 07/20/88

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ATTACHMENT TO EXHIBIT C-4
 PLAN AND BUDGET 1987-1988
 (THOUSANDS OF DOLLARS)

	ADJUSTED BUDGET	FINAL EXPEND.	CARRY OUT	SURPLUS
E. MANAGEMENT PROGRAM:				
1. MANAGEMENT EXPENSE:	\$11,090	\$10,867	\$201	\$22
2. GENERAL EXPENSE:	\$7,137	\$4,857	\$128	\$2,152
ADMINISTRATIVE OVERHEAD	\$707	\$625	\$13	\$69
PROGRAM TOTAL:	\$18,934	\$16,349	\$342	\$2,243
F. TAXES, PERMITS & LAND RENTAL PROGRAM:				
1. TAXES:	\$15,400	\$15,171	\$0	\$229
2. PERMITS:	\$710	\$650	\$0	\$0
3. LAND RENTAL:	\$1,576	\$1,576	\$0	\$0
ADMINISTRATIVE OVERHEAD	\$74	\$73	\$0	\$0
PROGRAM TOTAL:	\$17,760	\$17,470	\$0	\$289
TOTAL INVESTMENT:	\$7,000			
TOTAL EXPENSES:	\$104,643			
TOTAL OVERHEAD:	\$3,766			
TOTAL EXPENDITURES:	\$115,409			
TOTAL CARRY OUT:	\$3,394			
TOTAL SURPLUS:	\$13,213			
TOTAL BUDGET:	\$132,016			

* DIFFERENCE BETWEEN THIS REPORT AND THE BUDGET STATEMENT
 ARE DUE TO ROUNDING

REVISED BY THE
 CITY OF LONG BEACH
 07/20/88

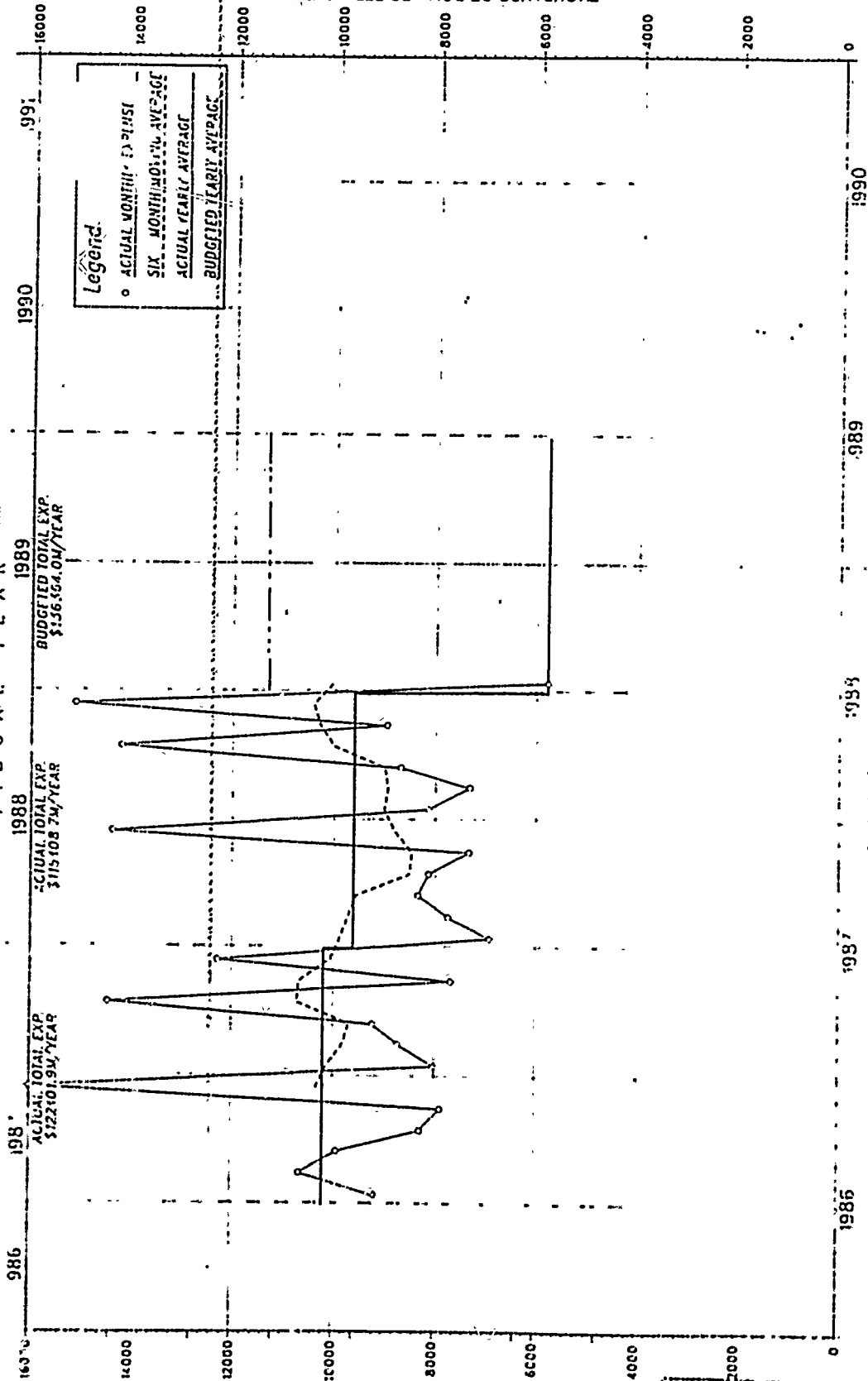
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LONG BEACH UNIT

EXHIBIT 1

TOTAL BUDGET -- INCLUDING ADMIN. OVERHEAD

FISCAL YEAR



MAY 1993

1989

1993

1987

1985

1990

1991

-- CALENDAR YEAR --

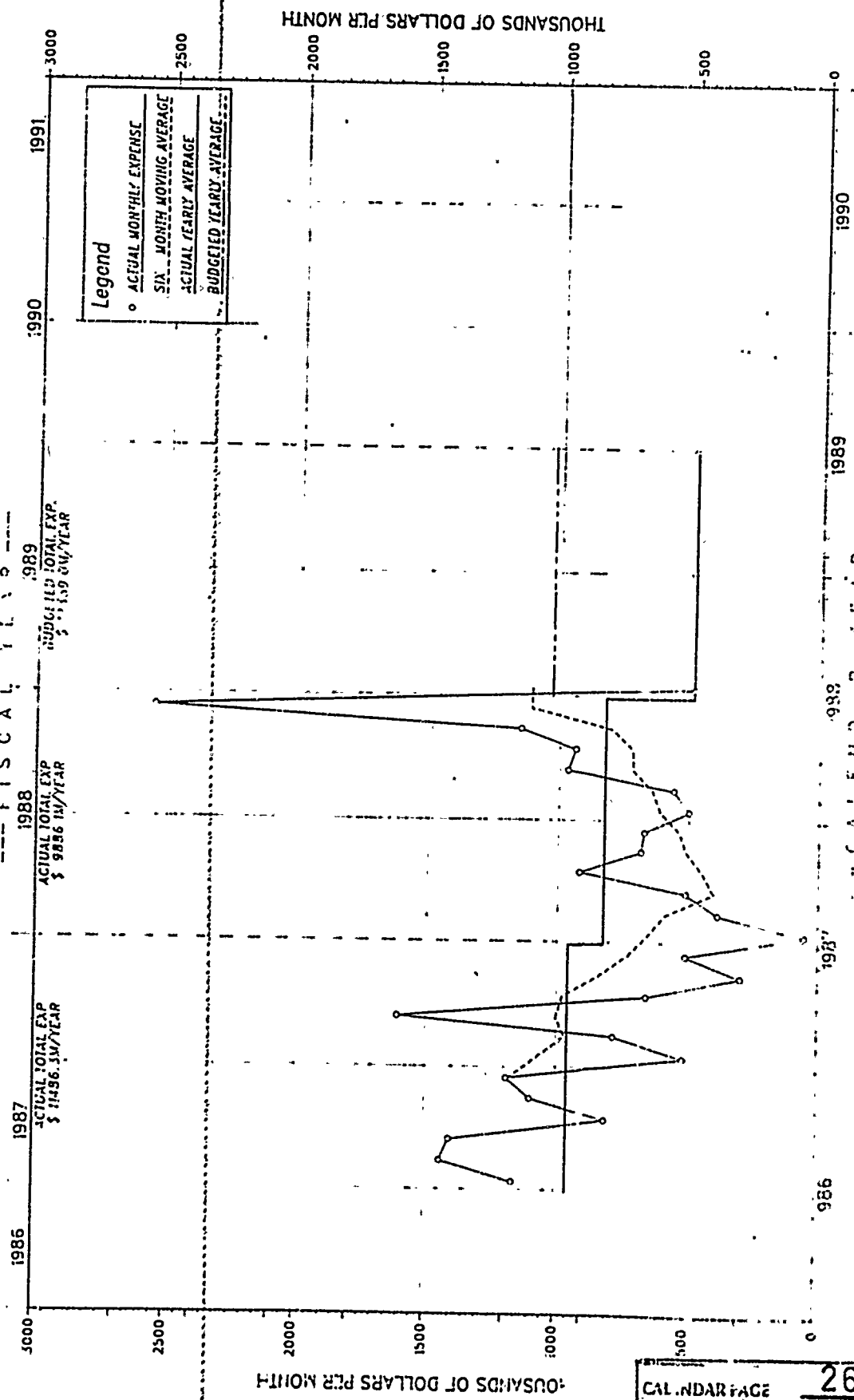
THOUSANDS OF DOLLARS PER MONTH

THOUSANDS OF DOLLARS PER MONTH

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DRILLING & DEVELOPMENT PROGRAM
 LONG BEACH UNIT
 TOTAL

EXHIBIT 2



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September 1995

LONG BEACH UNIT
OIL & GAS PRODUCTION PROGRAM

EXHIBIT 3

PROGRAM B

--- FISCAL YEAR ---

1990

1991

7000

1986

1987

1988

1989

ACTUAL TOTAL EXP.
\$ 52091.9M/YEAR

ACTUAL TOTAL EXP.
\$ 50548.5M/YEAR

BUDGETED TOTAL EXP.
\$ 62132.0M/YEAR

Legend

o ACTUAL MONTHLY EXPENSE

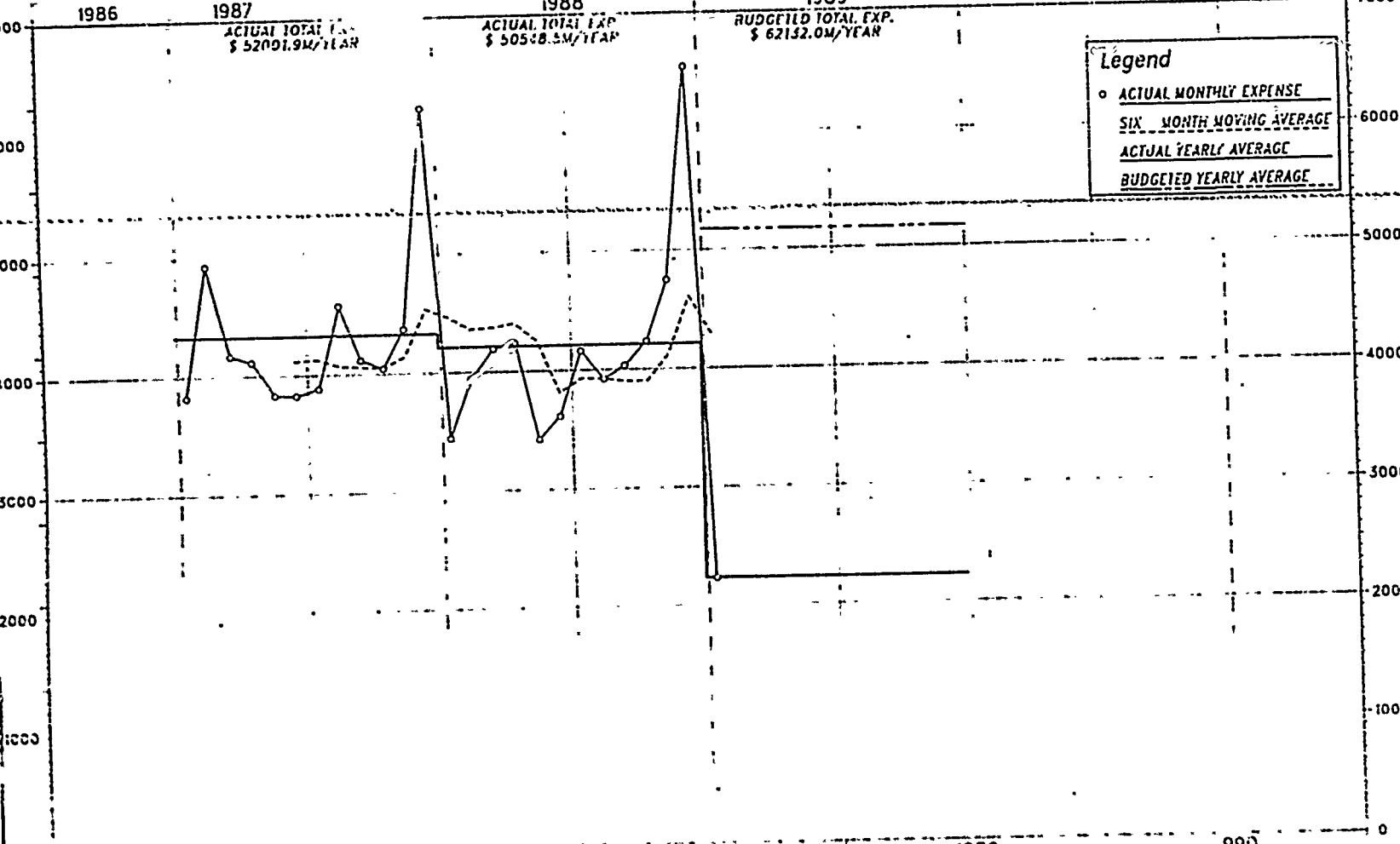
--- SIX MONTH MOVING AVERAGE

--- ACTUAL YEARLY AVERAGE

--- BUDGETED YEARLY AVERAGE

THOUSANDS OF DOLLARS PER MONTH

THOUSANDS OF DOLLARS PER MONTH



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2865

--- CALENDAR YEAR ---

1986

1987

1988

1989

1990

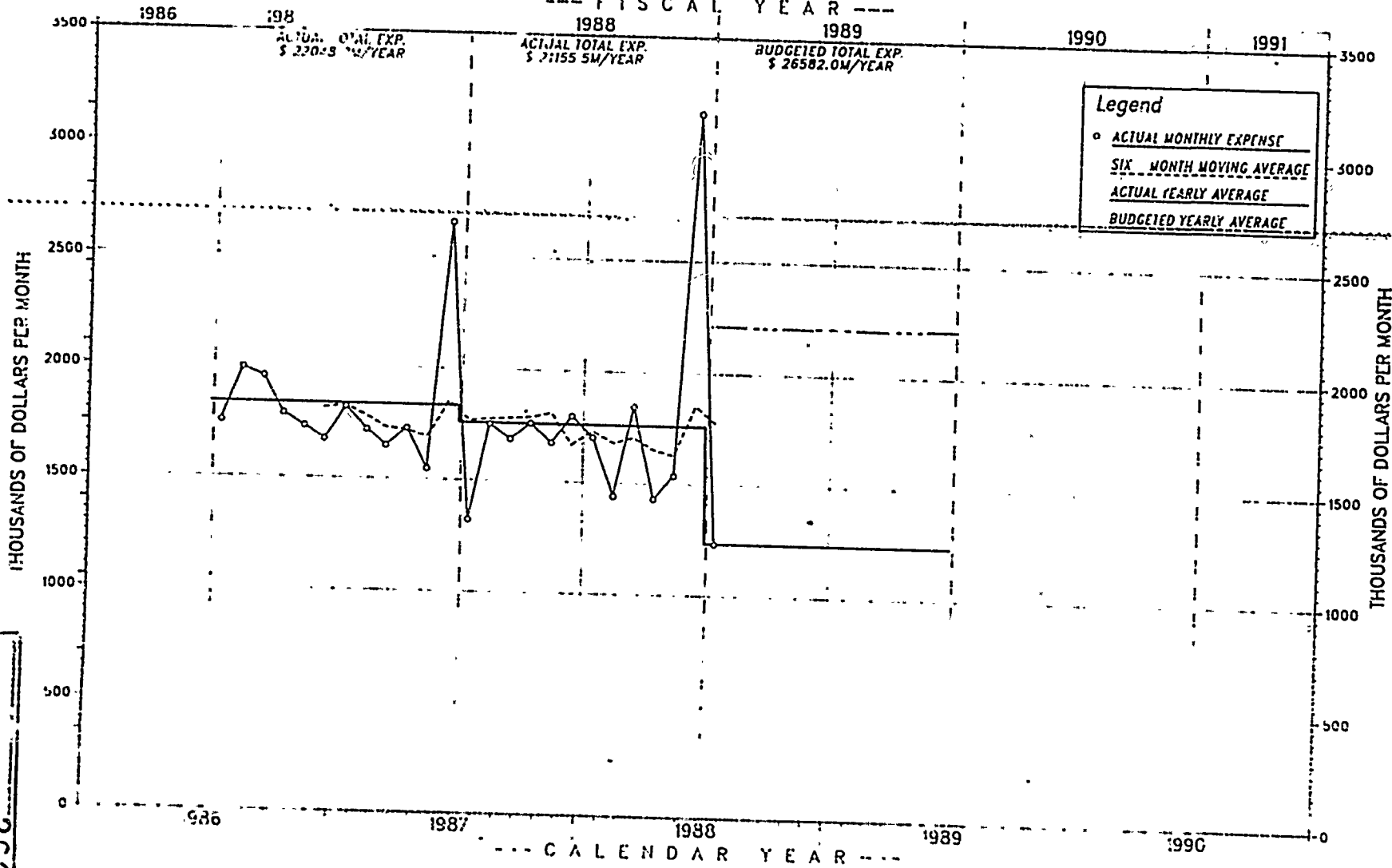
September 1992

LONG BEACH UNIT
 ACTION PROGRAM

EXHIBIT 4

PROGRAM D

FISCAL YEAR



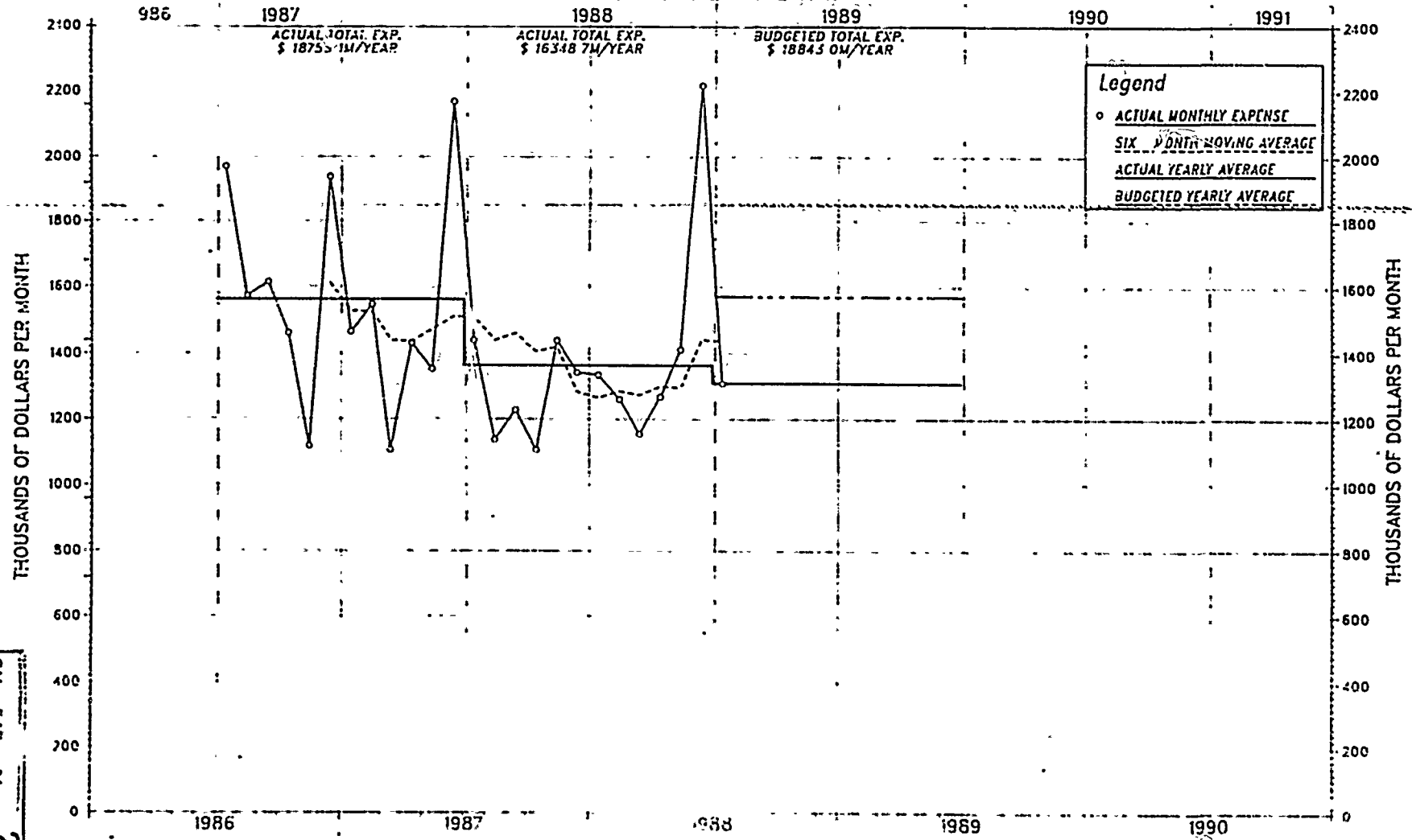
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LONG BEACH UNIT
MANAGEMENT PROGRAM

EXHIBIT 5

PROGRAM E

--- FISCAL YEAR ---



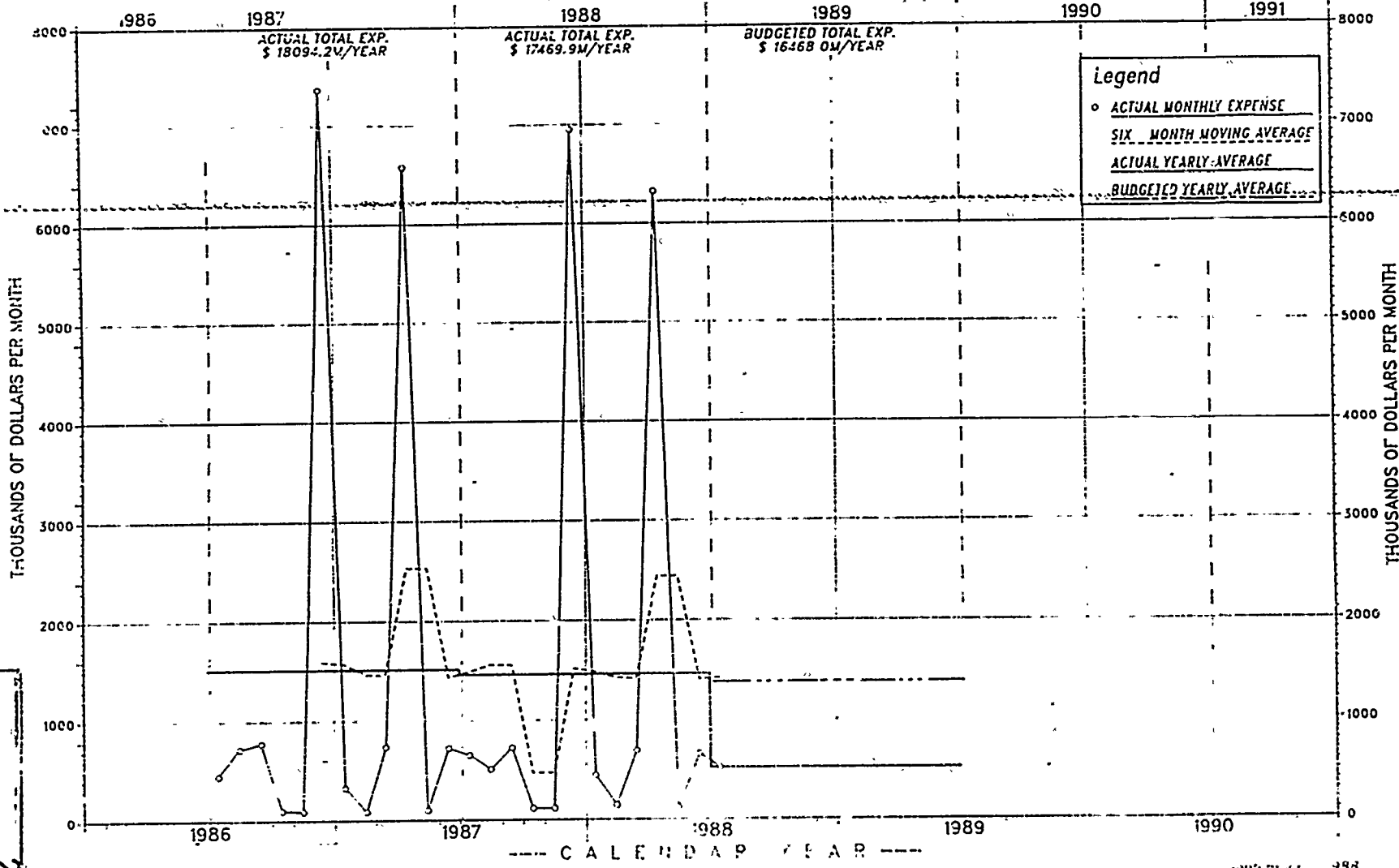
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LONG BEACH UNIT
TAXES, PRMTS. & RENTAL PROGRAM

EXHIBIT 6

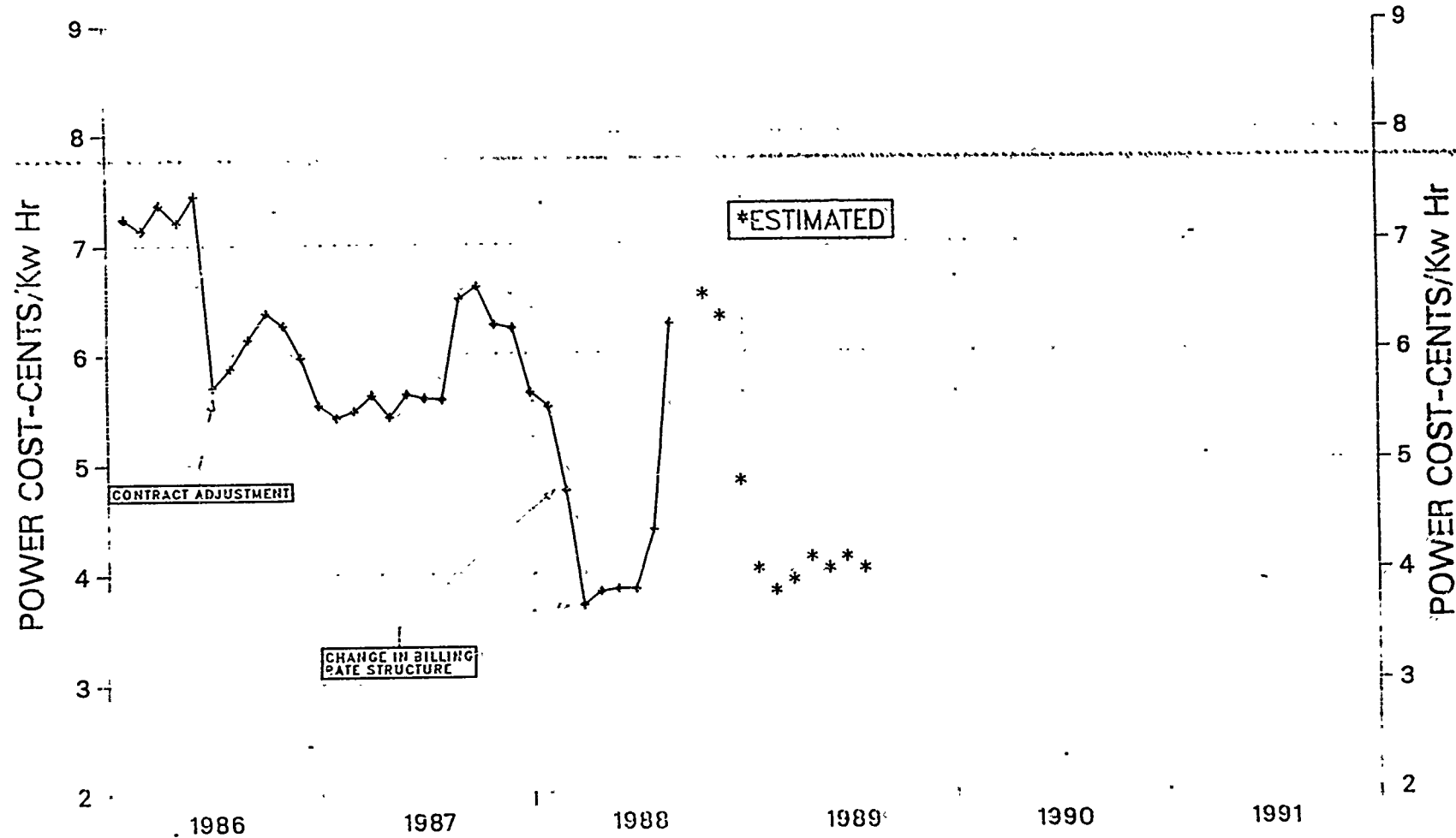
PROGRAM F

--- FISCAL YEAR ---



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LONG BEACH UNIT ELECTRICAL ENERGY COSTS



*ESTIMATED

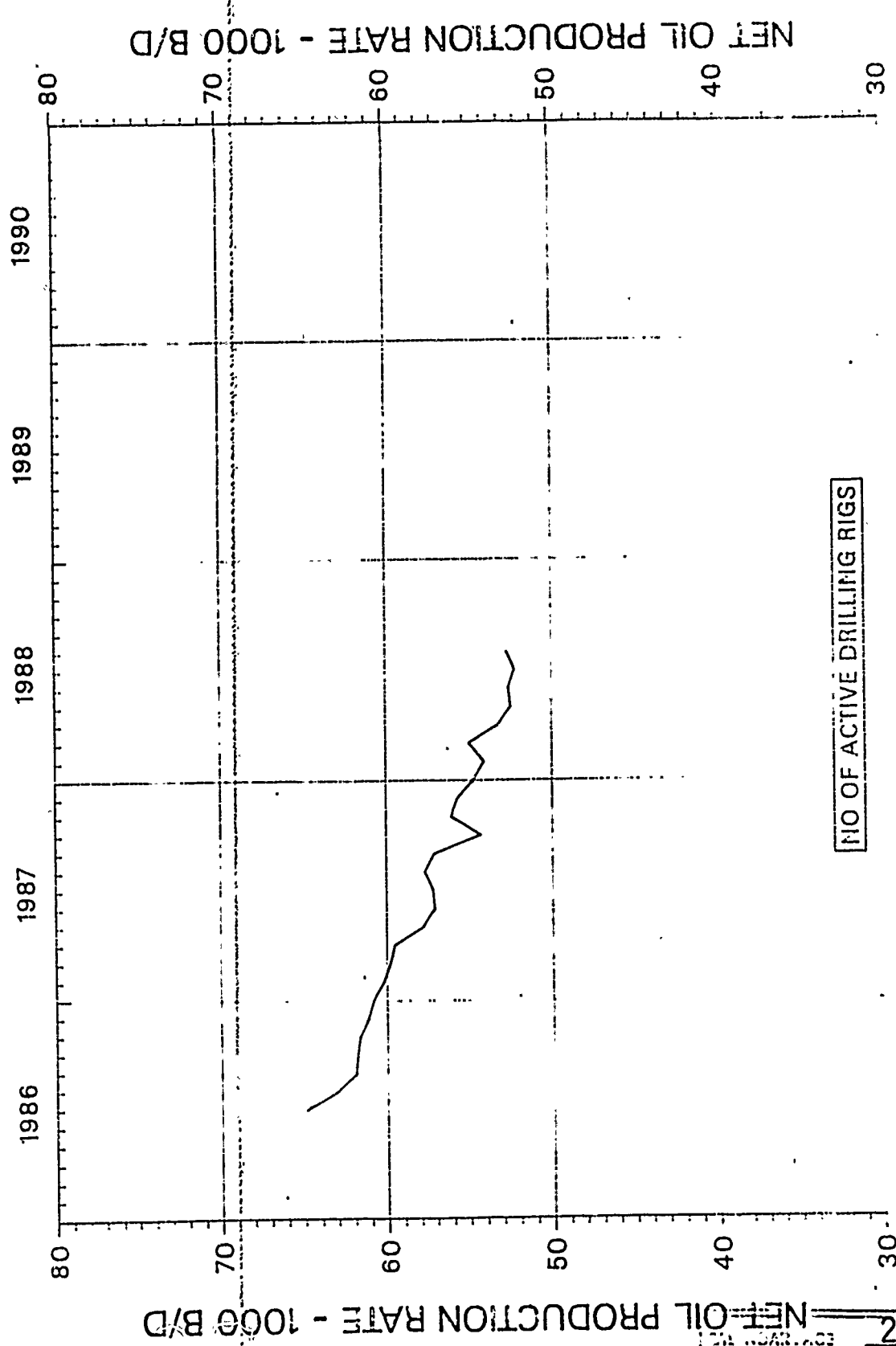
CONTRACT ADJUSTMENT

CHANGE IN BILLING RATE STRUCTURE

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LONG BEACH UNIT OIL PRODUCTION RATE

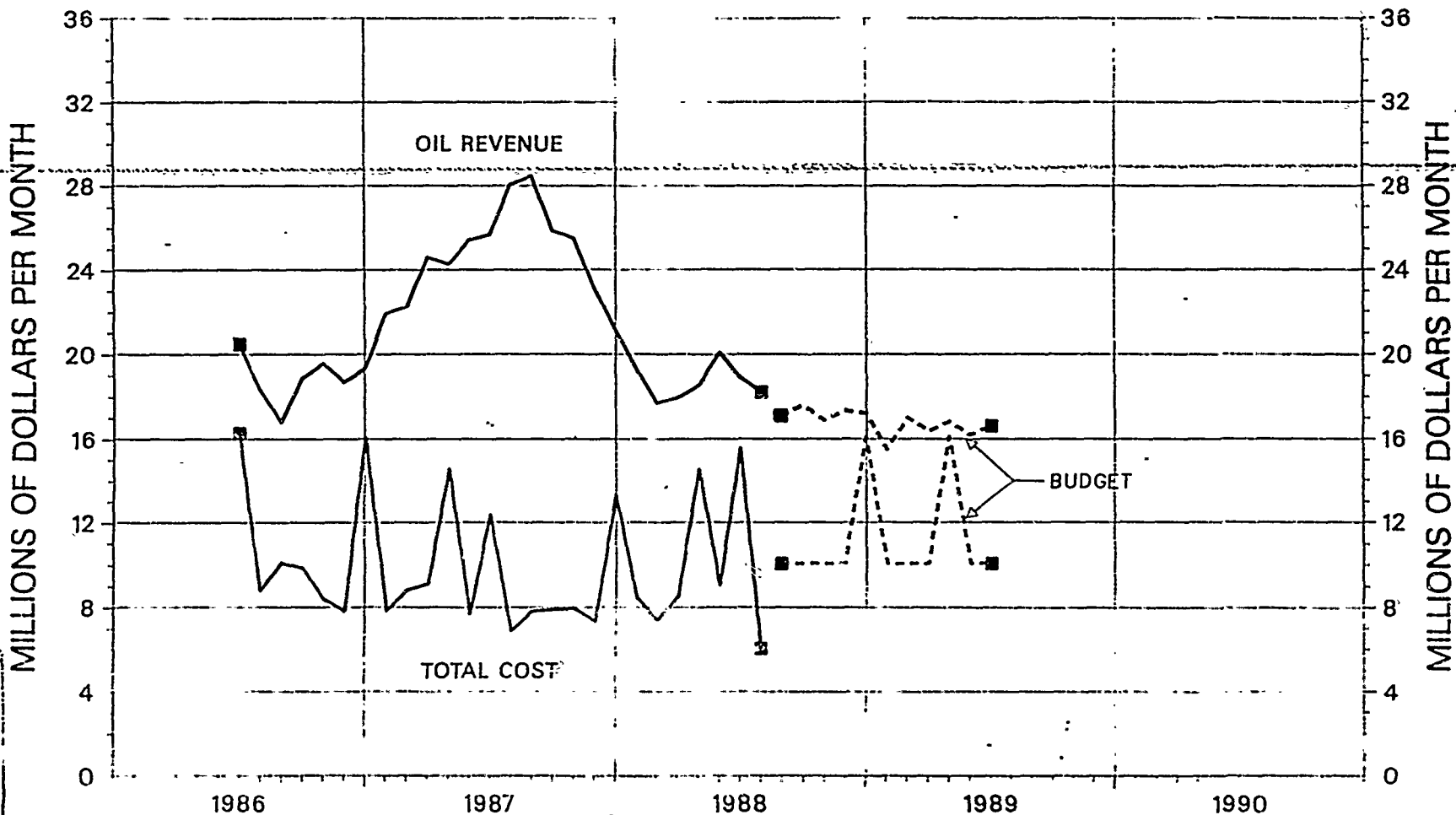
EXHIBIT 8



NET OIL PRODUCTION RATE - 1000 B/D	287.0
NO OF ACTIVE DRILLING RIGS	261.19

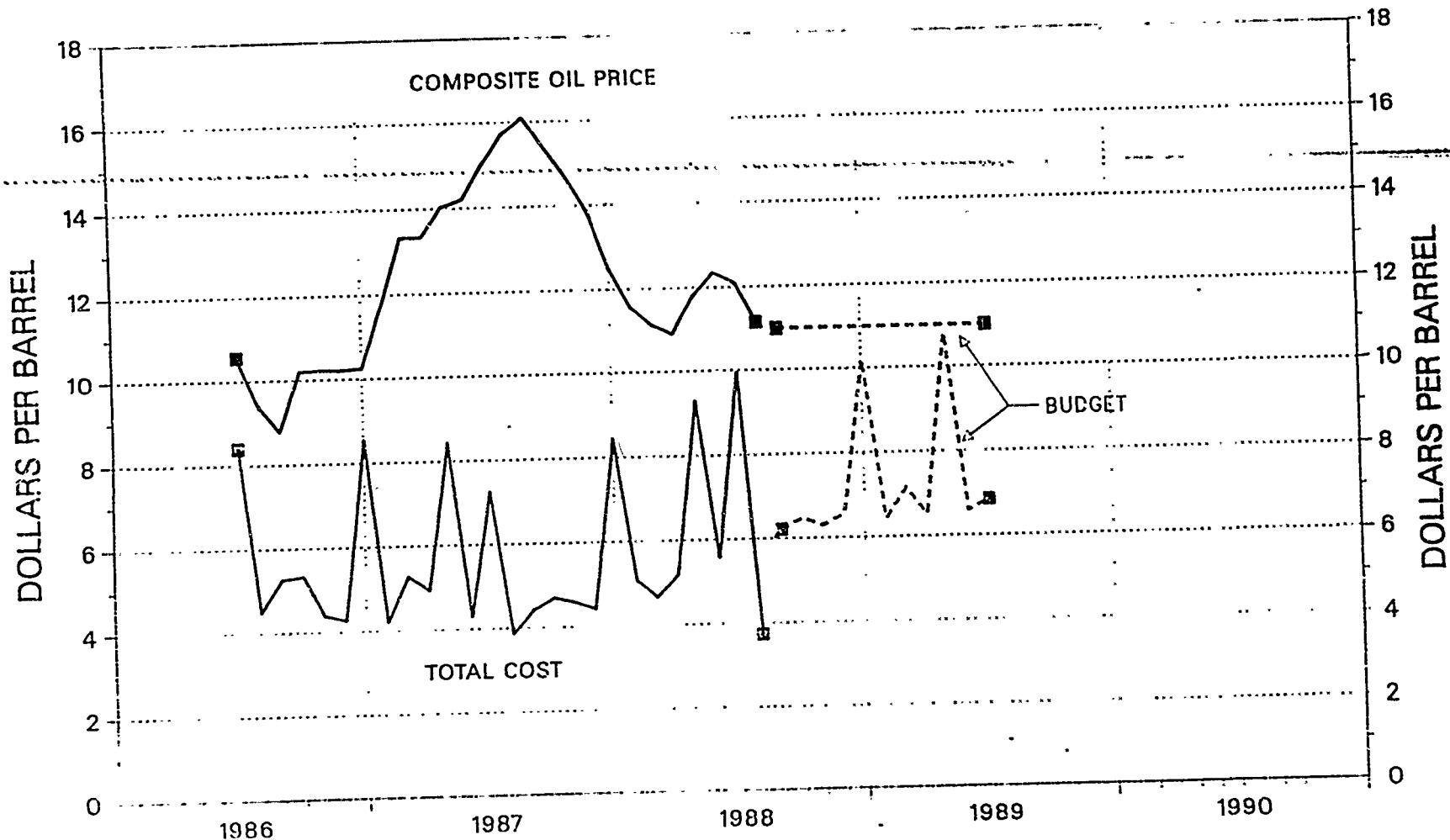
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LONG BEACH UNIT



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LONG BEACH UNIT



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