MINUTE ITEM
This Calendar Item No. 46
was submitted for information
only, no action thereon
being necessary.

INFORMATIVE
CALENDAR ITEM

A 57, 58

46

S 29

03/27/90
W 17096
G. Scott

FIRST EIGHT 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 eight months of the 1989-90 fiscal year (February 28, 1990) the Long Beach Unit Plan of Development and Operations and Budget remains unchanged at $141,377,000 including administrative overhead costs and a $4.056 million carry-over from 1988-89. The expenditure trend for the same period indicates a total of $131 million for the plan year, an increase of $6 million over 1988-89 expenses, due to increased drilling and development activity generated by City and State Lands staff to improve oil recovery. Inflation effects have been minimized by increased efficiency in operations.

During the first eight months, the Commission approved one modification to the Plan and Budget. The First Modification 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 the first quarter. 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.

Three requests by the Unit Operator (City of Long Beach) to transfer funds totalling $540,000 between line item accounts within the existing budget were approved. Two other plan supplements were approved. One was to replace the Pier J filter plant influent lines, and the other to inspect the oil shipping line flanges between J-6 and the Broadway and Mitchell shipping station.

(ADDED pgs. 355-355.6)

CALENDAR PAGE 355
MINUTE PAGE 718

Unit expenditures during the first eight months (66.5%) amounted to $79,865,000 or 56.5 per cent of the original budget plus carry-over. A plot of these expenditures is shown on attached Exhibit 1. Projected spending for the next four months and the expenditures to date indicates a possible excess of $10,000,000 in the Budget for FY 89-90.

Oil production for the first eight-month period amounted to 11.517 million barrels and gas production was 2,146.5 million 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 $14.88 per barrel of oil and $2.61 per thousand cubic feet of gas, the total value of Unit production for the eight-month period was $177 million. This was $43.8 million more than the $133.22 million revenue projected for eight 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 Unit operations during the eight-month period amounted to $97.1 million. This is already $33.5 million above the $63.56 million net income, including carry-over, projected for the entire budget year and is due to the fact that oil prices for the period averaged $3.23 per barrel more than originally projected.

In addition, oil production for the eight-month period has averaged 47,395 BOPD, 346 BOPD above the budgeted projection. The relationship between oil prices and revenues to costs is shown on Exhibits 3 and 4. Oil prices have increased over 27 per cent above budgeted projections, and have averaged $17.39/bbl. for the first two months of 1990. Net income for the year is projected to be above the budgeted figure due mainly to higher oil prices and slightly lower expenditures than budgeted. The City has projected a net income of $143.6 million dollars for the 1989-1990 FY assuming oil prices average $17/barrel for the next four months. The Commission staff estimates oil prices to be lower than this for the remainder of the FY, averaging $16/barrel, and project the total net income of the Unit at $137.5 million dollars. Because of the higher oil prices than originally budgeted, however, the staff has been able to take advantage of opportunities identified from in-house studies to generate additional oil recovery from the Long Beach Unit.

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

A. DRILLING AND DEVELOPMENT PROGRAM

Two drilling rigs were operated during the first eight months. Activity was on Islands White and Chaffee. Six new producing wells and two new water injection wells were drilled, three producers and four injectors were redrilled, one producer was recompleted to another zone, one producer recompleted and converted to injection, and five 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 14 to date in FY 1989-90. Seven wells (2 producers and five injectors) were abandoned to the surface casing shoe. Seven more wells (1 producer, 6 injectors) were permanently abandoned. The drilling rig was used to abandon two 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 and Lower Terminal Zones. Oil production of 1490 B/D was obtained from this work which reduced the rate of the production decline in the unit. Because of higher oil prices, the staff has identified more economic opportunities, and an increase in drilling and development activity will possibly require the activation of a third drilling rig in FY 1990-91.

The adjusted budget for the Drilling and Development Program on February 28, 1990 was $20,504,000. Funds expended were $11,292,217 (54.3%). A plot of monthly expenditures is shown on Exhibit 5.

B. OIL AND GAS PRODUCTION PROGRAM

The Unit produced 11.517 million barrels of oil and 2146.5 million cubic feet of gas during the first eight months. Average production rates were 47,395 barrels of oil per day and 8,833 thousand cubic feet of gas per day versus budgeted projected rates of 47,049 B/D oil and 8,496 MCF/D gas. Expenditures for the eight-month period plotted as dollars per barrel of oil produced are shown on Exhibit 6.

The principal function of this program is the production of fluids. Gross production for the period was 114.88 million barrels for an average of 472,771 B/D. The City projected rate was 475,781 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 stabilization in active producing wells (583 on June 30, 1989 and 584 on January 31, 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. The City of Long Beach 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 in progress include the installation of piping for two recently installed 30,000 barrel oil storage tanks at the Pier J-6 site, 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.

The adjusted budget for the Oil and Gas Production Program was increased $3,640,000 by carry-overs to $60,205,000 of which $34,196,966 (56.8%) were expended at the end of the first eight months. 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.

D. WATER INJECTION PROGRAM

A total of 124.4 million barrels of water were injected during the first eight months. The average rate was 511,720 barrels per day which was lower than the 517,642 B/D projected. Gross produced fluids amounted to 114.9 million barrels so the injection/production fluids volume ratio averaged 108.2 percent for the eight-month period. It is anticipated that emphasis on water injection will be maintained to enhance recovery and mitigate subsidence. 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 flat.

The budget for the Water Injection Program amounted to $24,212,000 of which $14,567,877 (60.2%) were expended at the end of the first eight 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 modeling equipment and acquiring in-house expertise. Future enhancements to this program to generate additional oil reserves includes the Long Beach Reservoir Computer System to be purchased in FY 1990-91. 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 project in progress is on Island Chaffee, where the transited fire line system is being replaced with plastic-coated steel line.

The adjusted budget on February 28, 1990 was $21,348,000 for the Management Program of which $12,381,026 (57.9) were expended during the first seven 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 February 28, 1990 amounted to $15,108,000 of which $7,393.252 (48.9%) 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 eight months ending February 28, 1990 (in thousands of dollars) is:

	Program	Original Budget**	Expenditures* to 1/31/90 (58.3%)	
A.	Drilling and Development	$ 20,504	$11,292.2	(54.3%)
B.	Oil and Gas Production	60,205	34,196.9	(56.8%)
C.	Enhanced Recovery and Stimulation	-0-	-0-	-0-
D.	Water Injection	24,212	14,567.9	(60.2%)
E.	Management	21,348	12,381.1	(57.9%)
F.	Taxes, Permits and Land Rentals	15,108	7,393.3	(48.9%)
	Totals	$141,377	$79,831.3	(56.5%)

*Includes Administrative Overhead Costs
**Includes Administrative Overhead Costs and $4,056,1000 1988-89 Carry-Over

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).

CALENDAR PAGE 355.5
MINUTE PAGE 723

CALENDAR ITEM NO. 46 (CONT'D)

EXHIBITS: (cont.)

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).

CALENDAR PAGE 355.6
MINUTE PAGE 724

(ADDED pgs. 355.7-355.20)

EXHIBIT 1

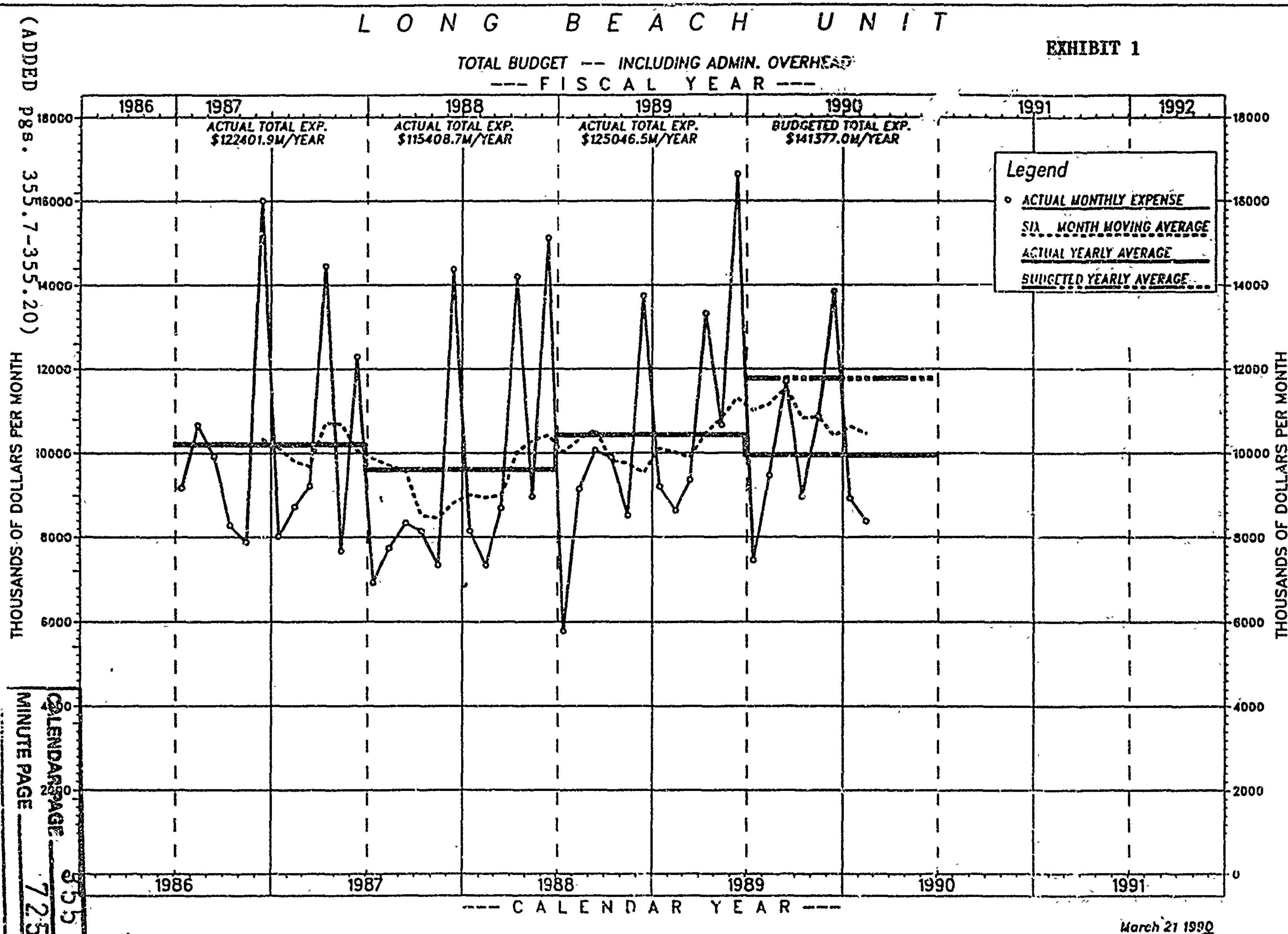
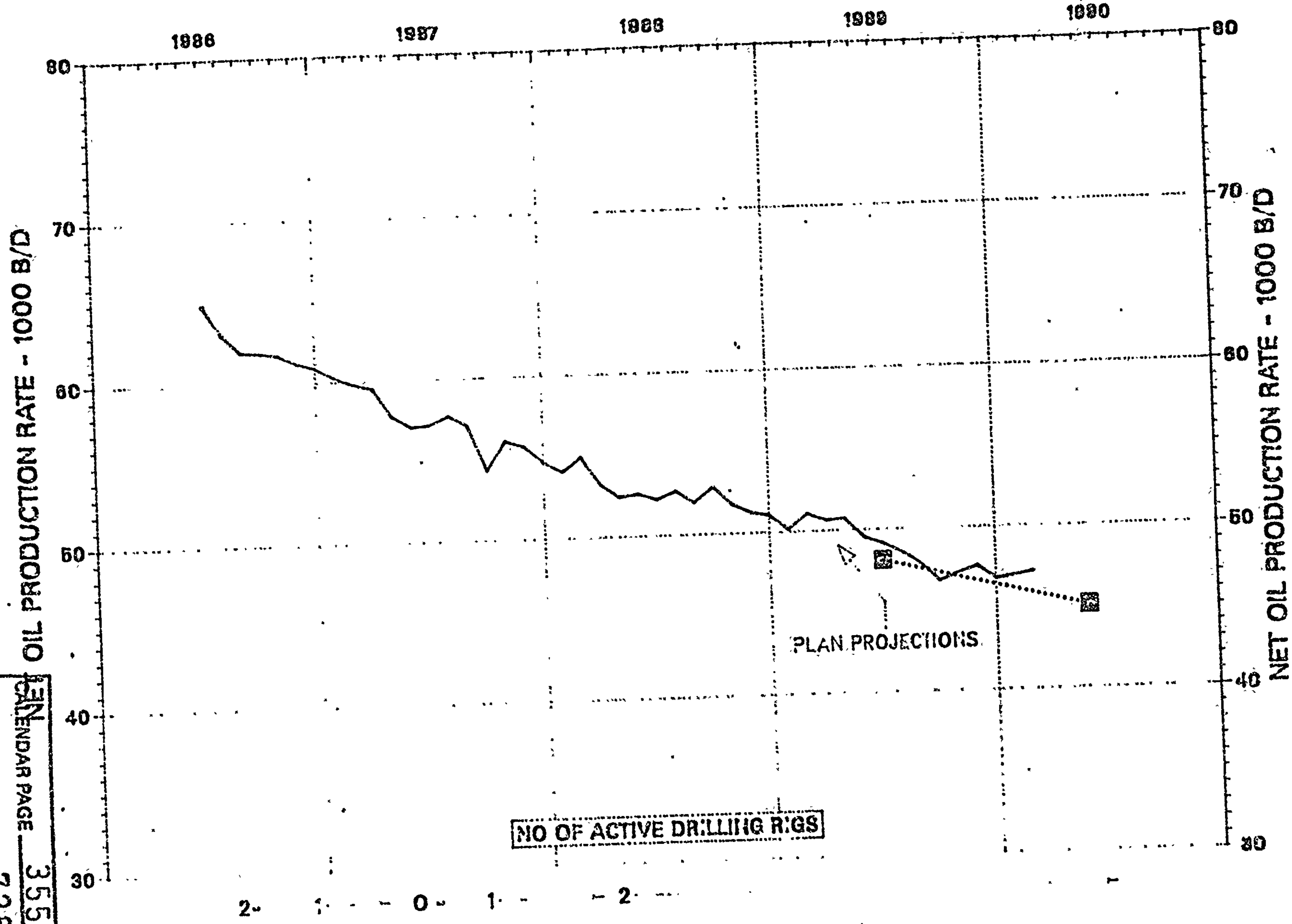


EXHIBIT 2

LONG BEACH UNIT
OIL PRODUCTION RATE



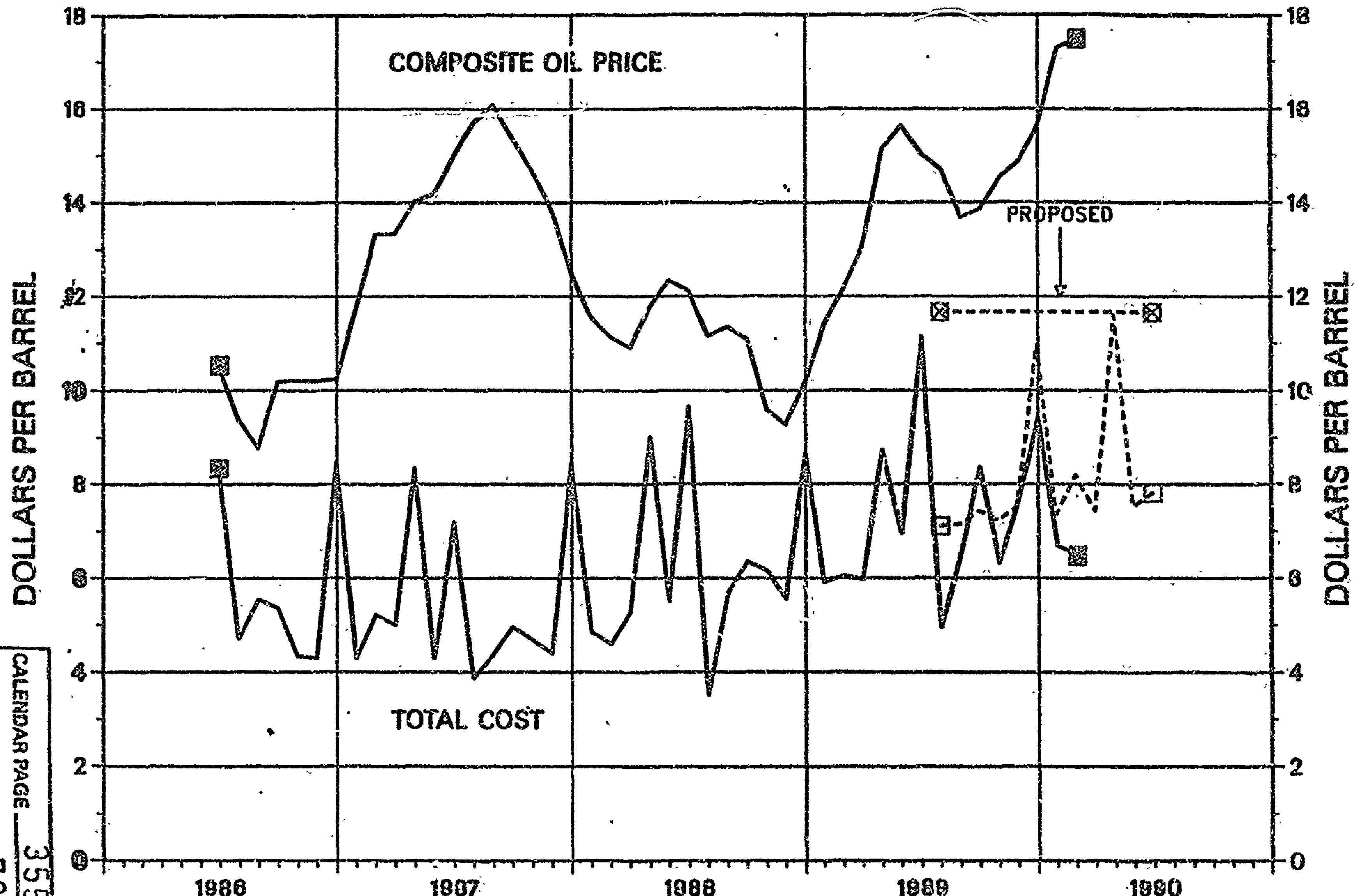
CALENDAR PAGE 355.3
MINUTE PAGE 726

March 16 1990

0.1534

EXHIBIT 3

LONG BEACH UNIT

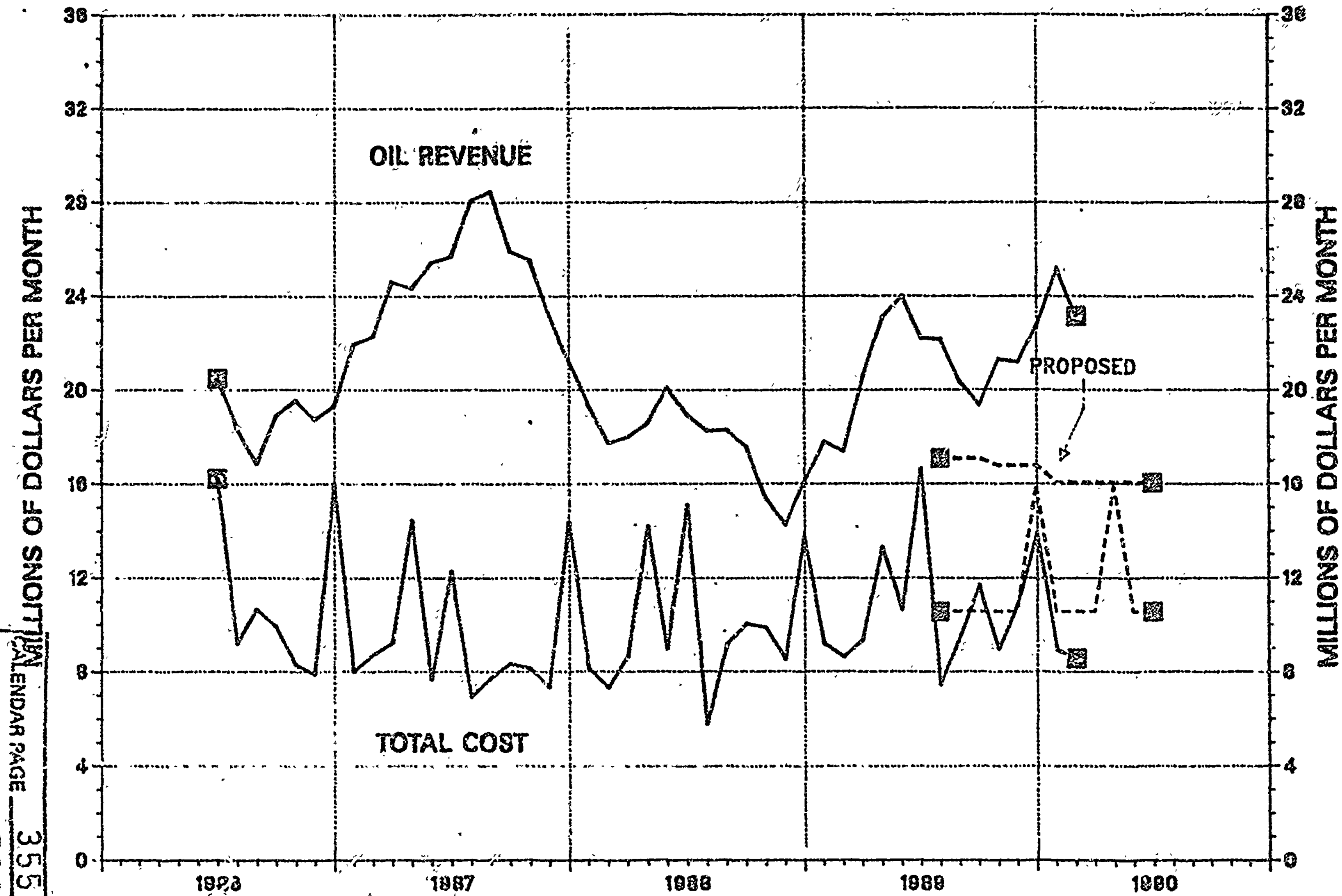


March 19, 1990

0.1525

EXHIBIT 4

LONG BEACH UNIT



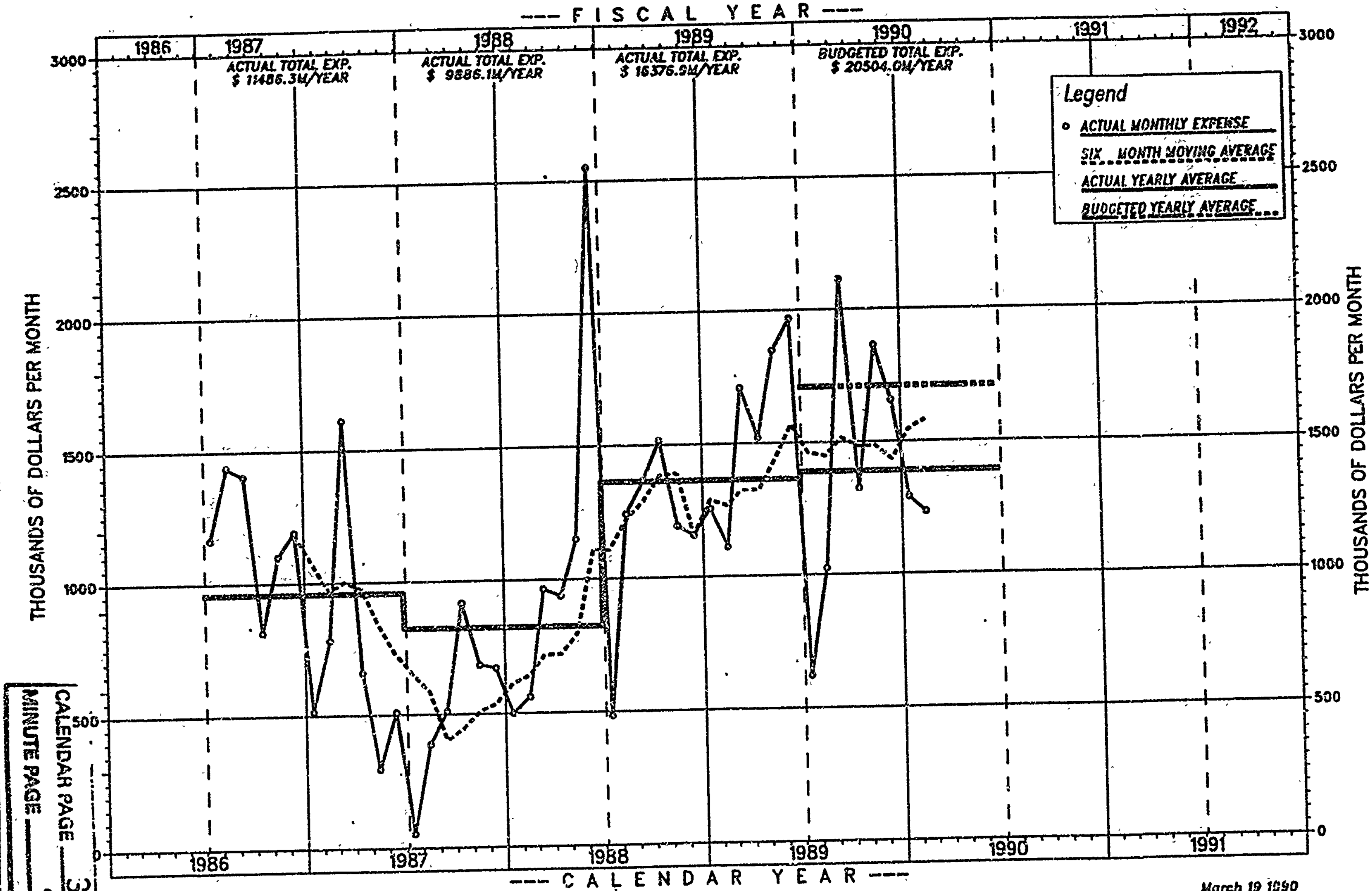
March 19 1990

LONG BEACH UNIT
TOTAL

EXHIBIT 5

DRILLING & DEVELOPMENT PROGRAM

PROGRAM A



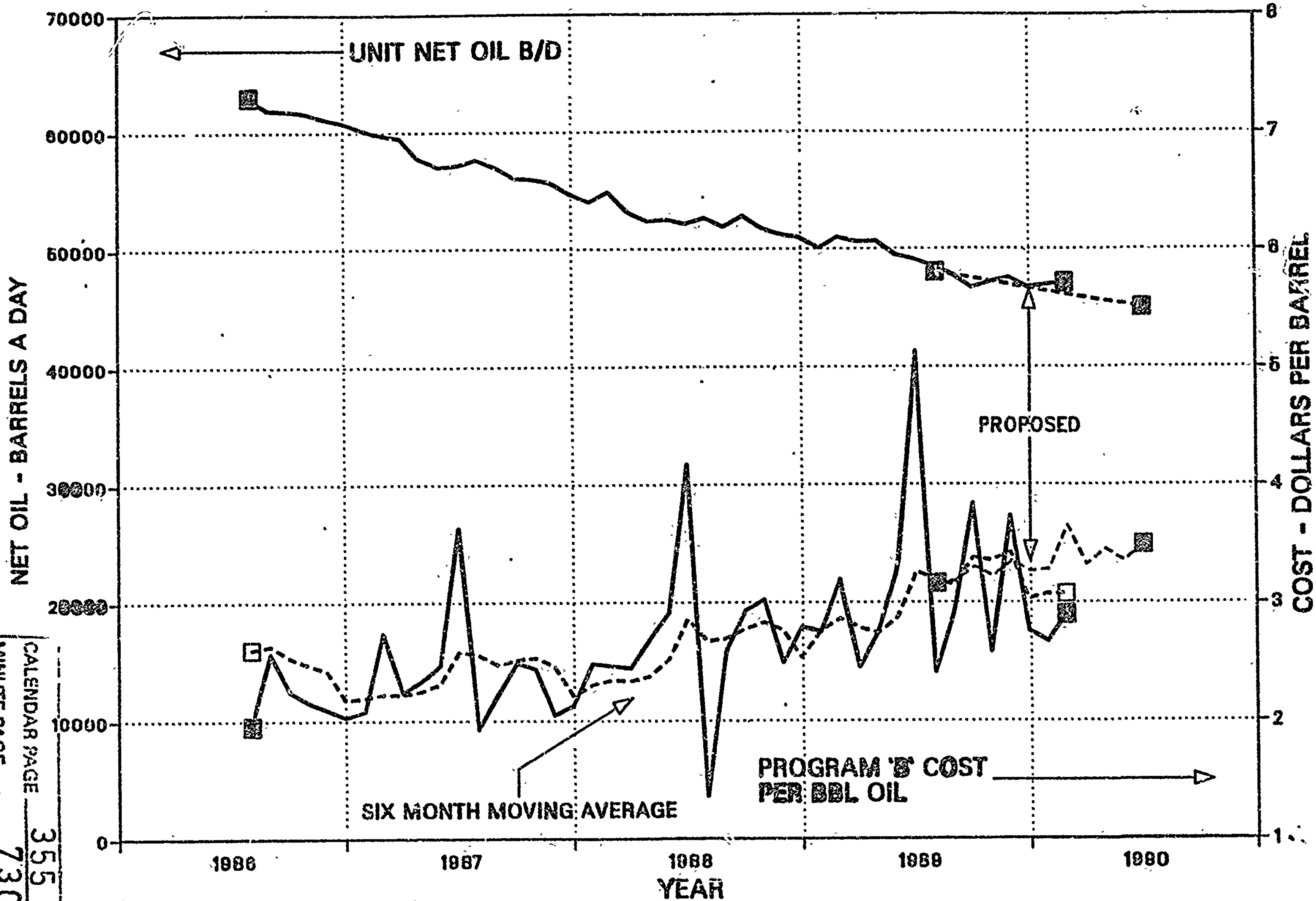
CALENDAR PAGE 355.1

MINUTE PAGE 729

EXHIBIT 6

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

LONG BEACH UNIT



Mar 19 1990

CALENDAR PAGE 355.12

MINUTE PAGE 730

0.1528

EXHIBIT 7

OIL & GAS PRODUCTION PROGRAM 'B' COSTS
EXPRESSED AS $/BBL GROSS FLUID

LONG BEACH UNIT

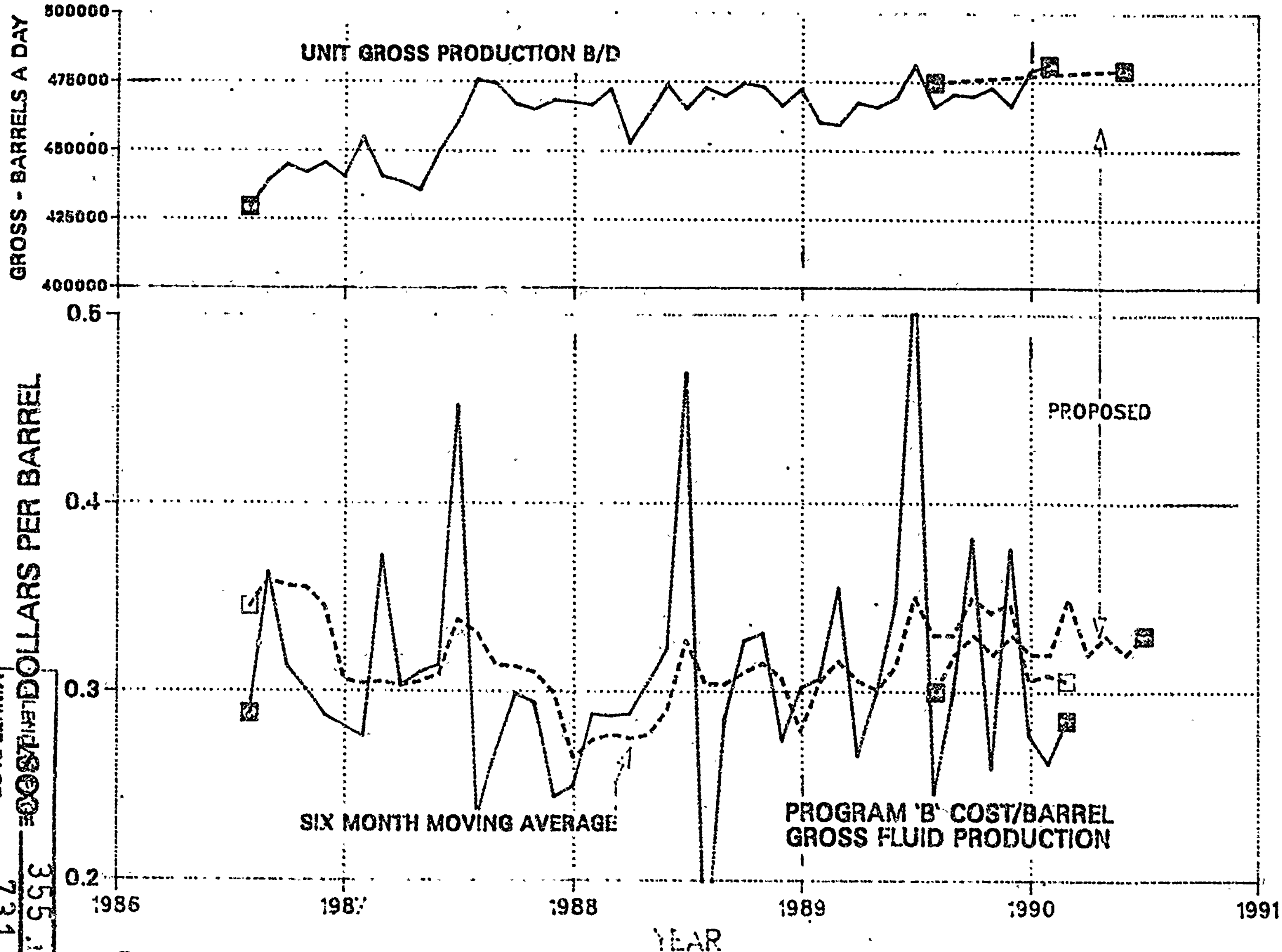
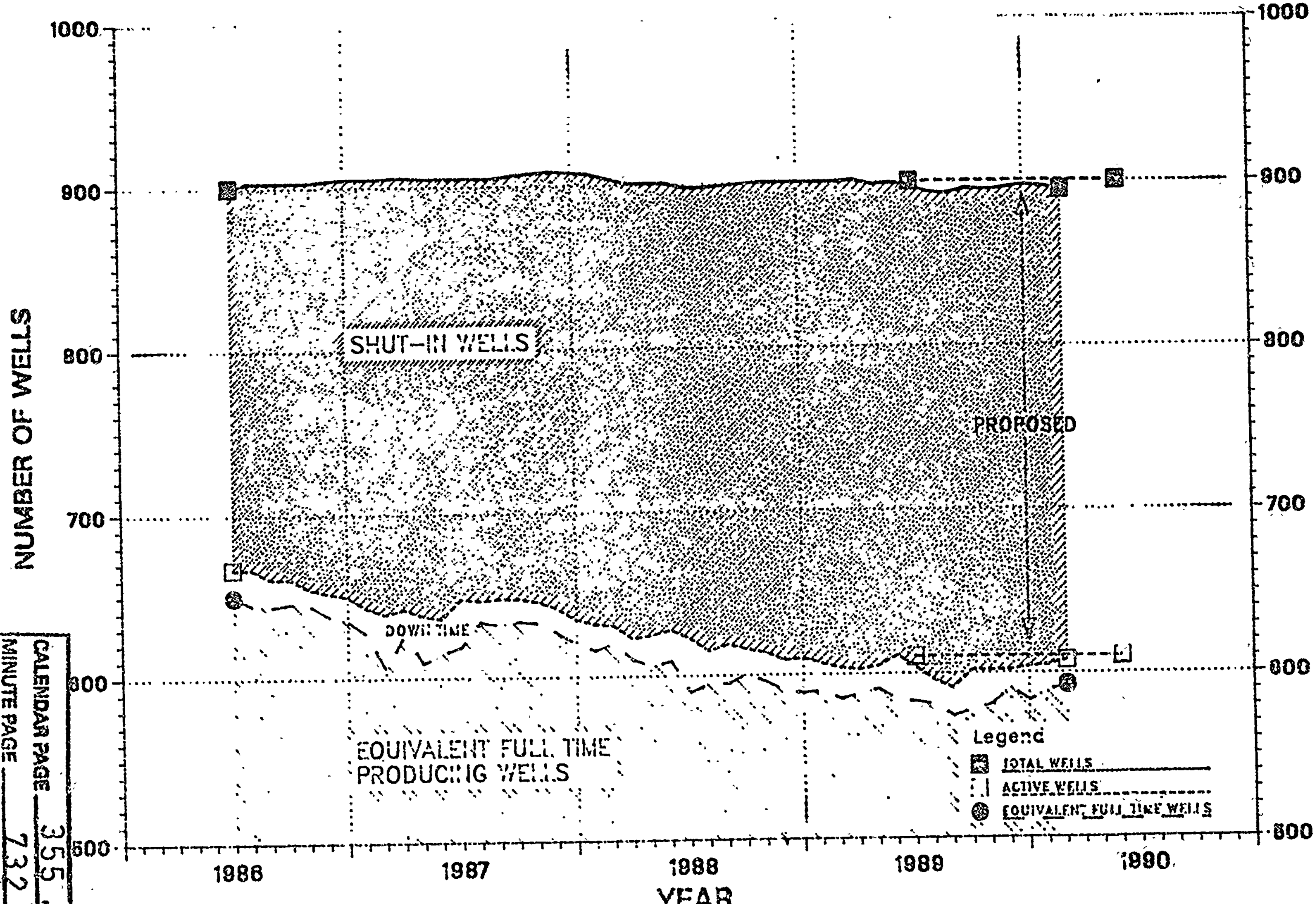


EXHIBIT 8

LONG BEACH UNIT PRODUCING WELLS



March 16 1990

CALENDAR PAGE 355.14
MINUTE PAGE 732

0.1531

EXHIBIT 9

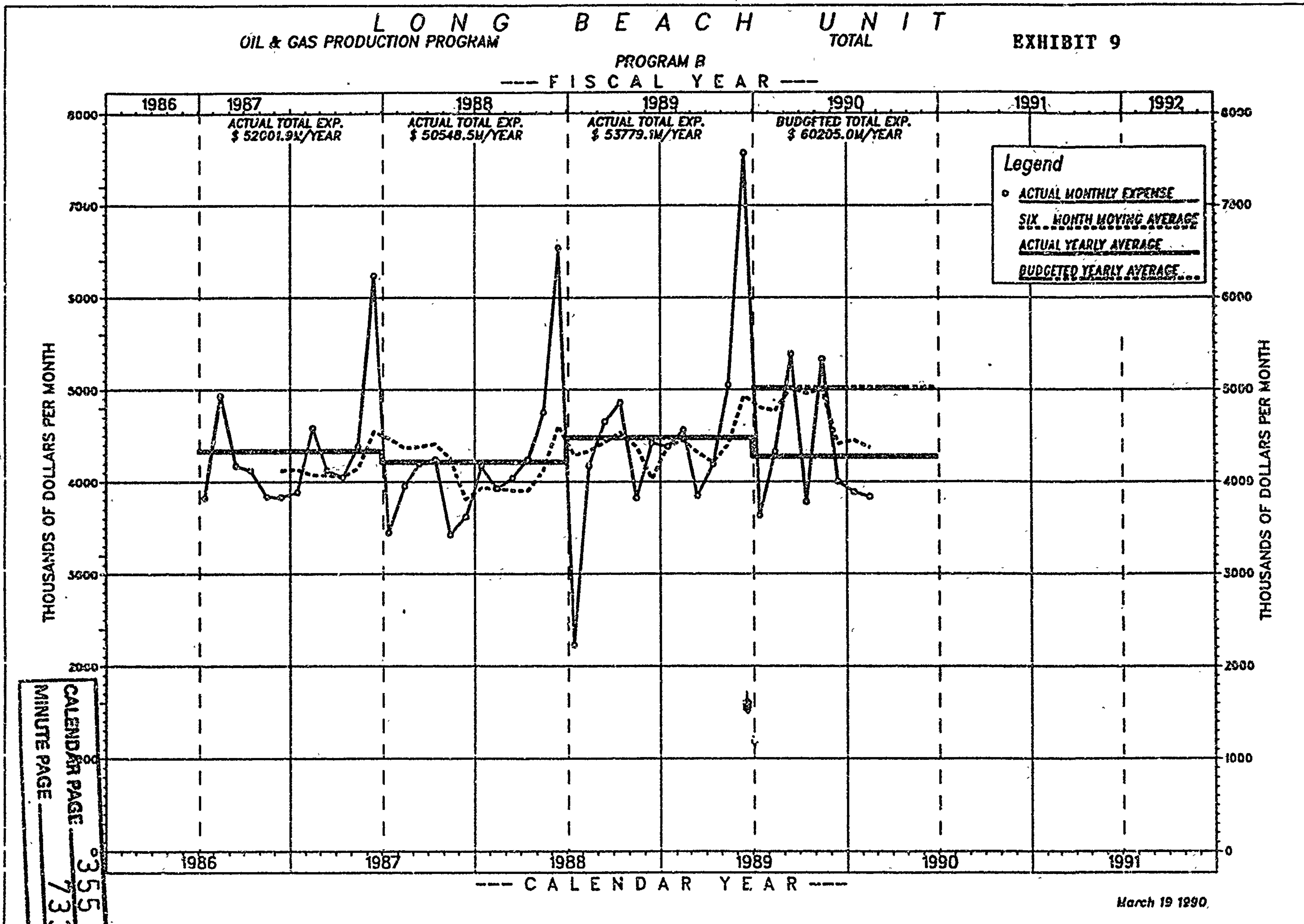
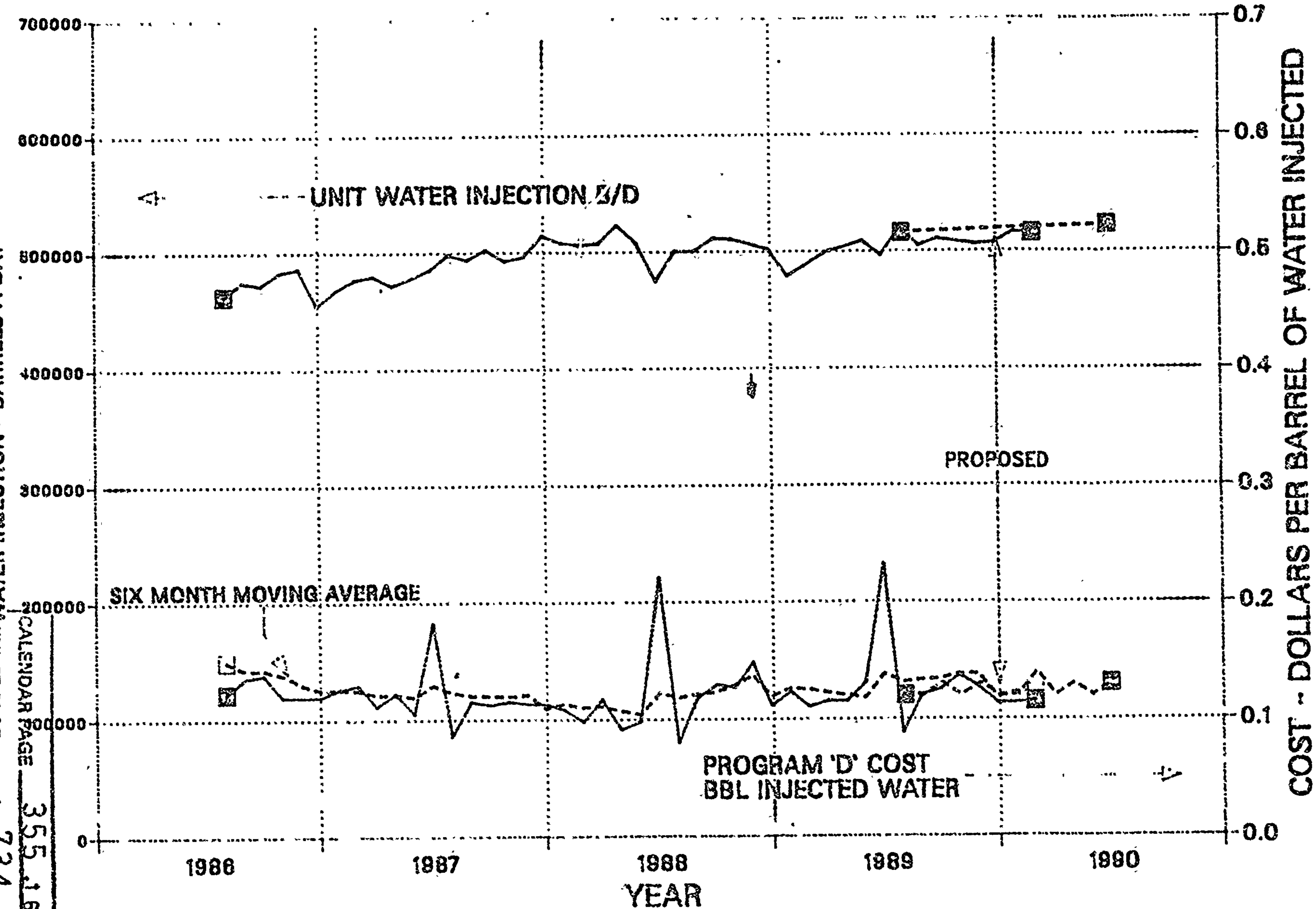

L O N G B E A C H U N I T
OIL & GAS PRODUCTION PROGRAM
TOTAL
PROGRAM B
FISCAL YEAR
1986
1987
1988
1989
1990
1991
1992
ACTUAL TOTAL EXP. $ 52001.9M/YEAR
ACTUAL TOTAL EXP. $ 50548.5M/YEAR
ACTUAL TOTAL EXP. $ 53779.1M/YEAR
BUDGETED TOTAL EXP. $ 60205.0M/YEAR
Legend
ACTUAL MONTHLY EXPENSE
SIX MONTH MOVING AVERAGE
ACTUAL YEARLY AVERAGE
BUDGETED YEARLY AVERAGE
THOUSANDS OF DOLLARS PER MONTH
CALENDAR YEAR
March 19 1990

EXHIBIT 10

LONG BEACH UNIT

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



CALENDAR PAGE 355.16
MINUTE PAGE 734

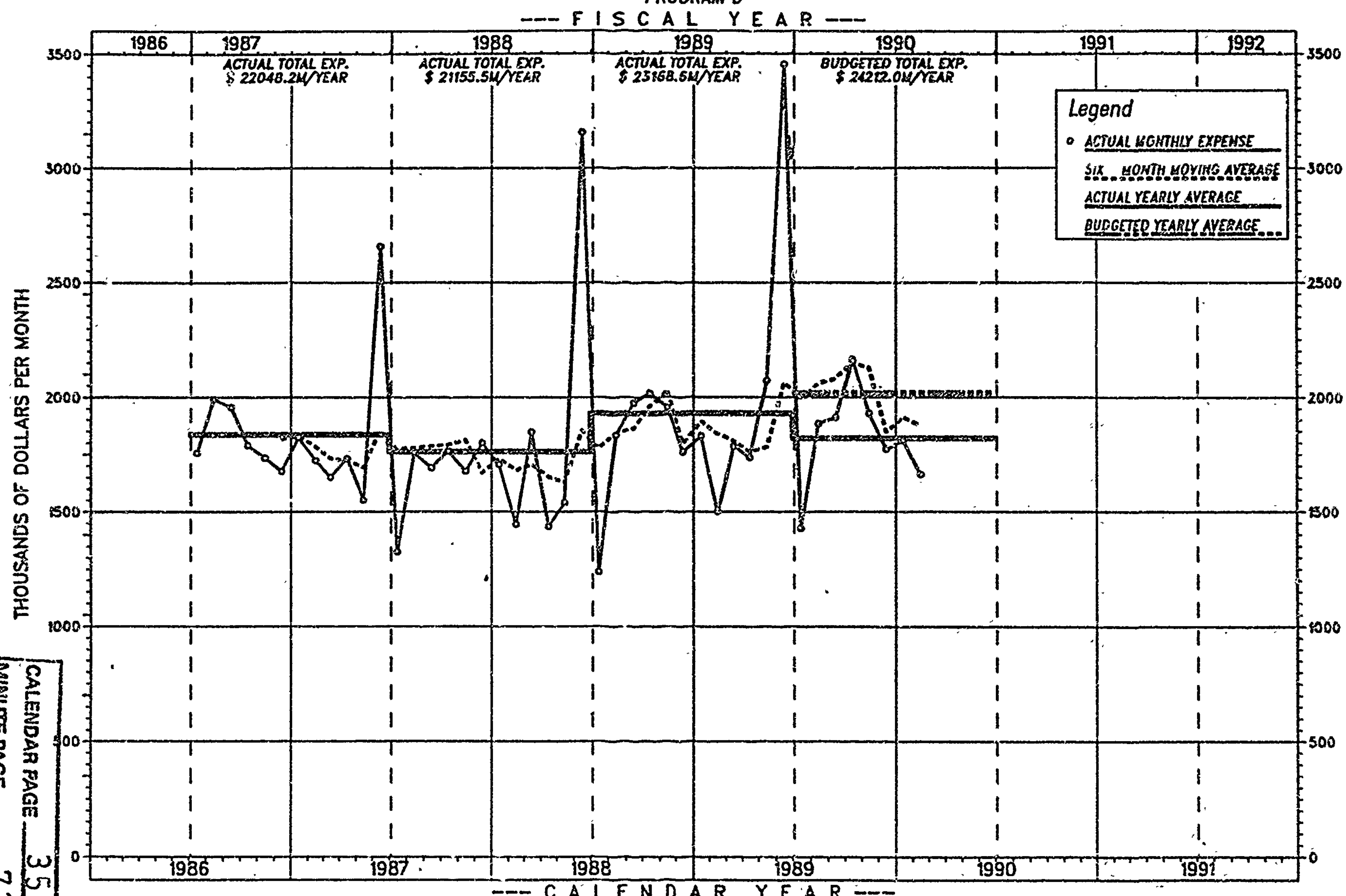
Mar 16 1990

LONG BEACH UNIT

WATER INJECTION PROGRAM — TOTAL

PROGRAM D

EXHIBIT 11

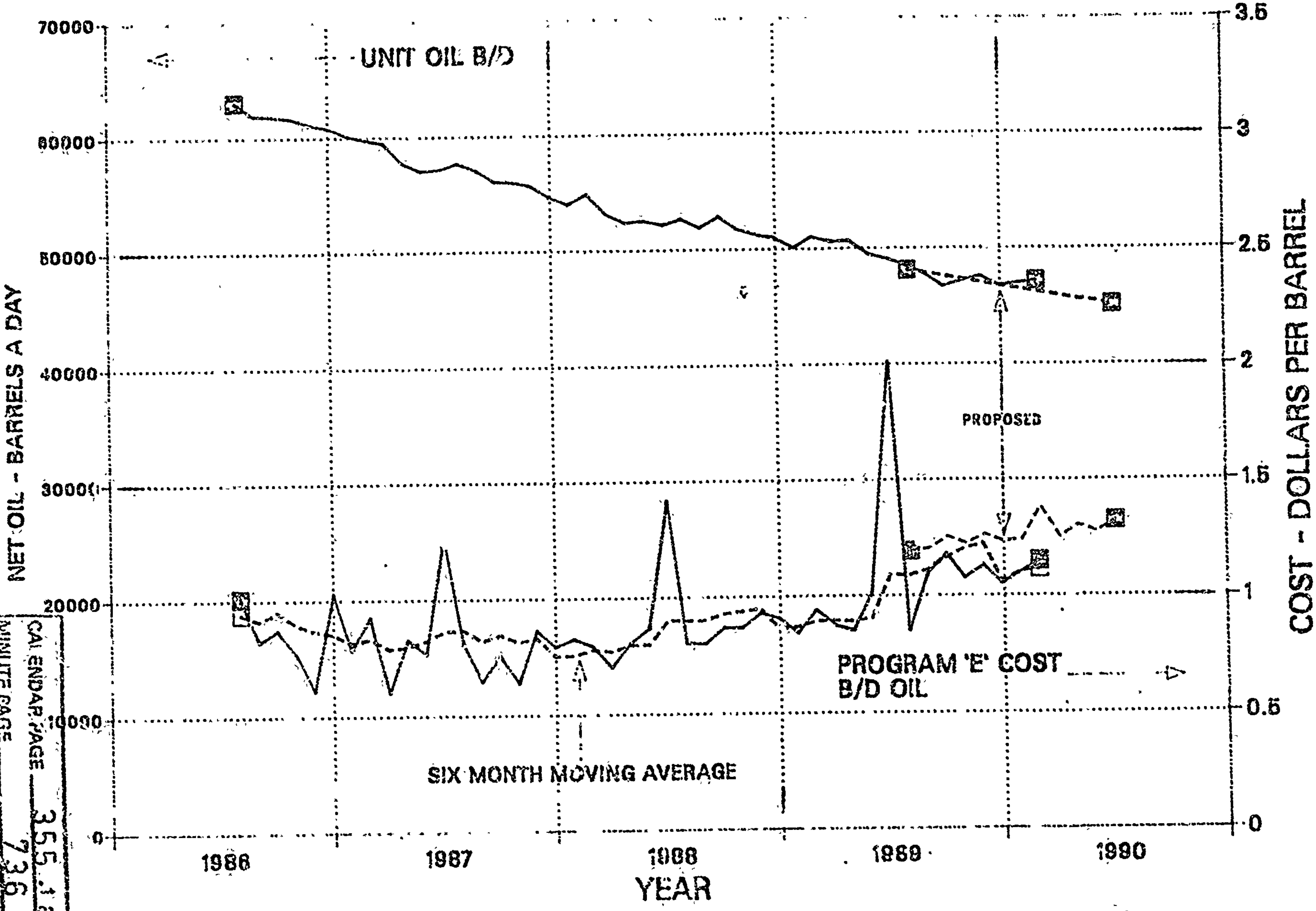


March 19 1990

EXHIBIT 12

LONG BEACH UNIT

MANAGEMENT PROGRAM COSTS EXPRESSED AS $/BBL OIL



Mar 16 1990

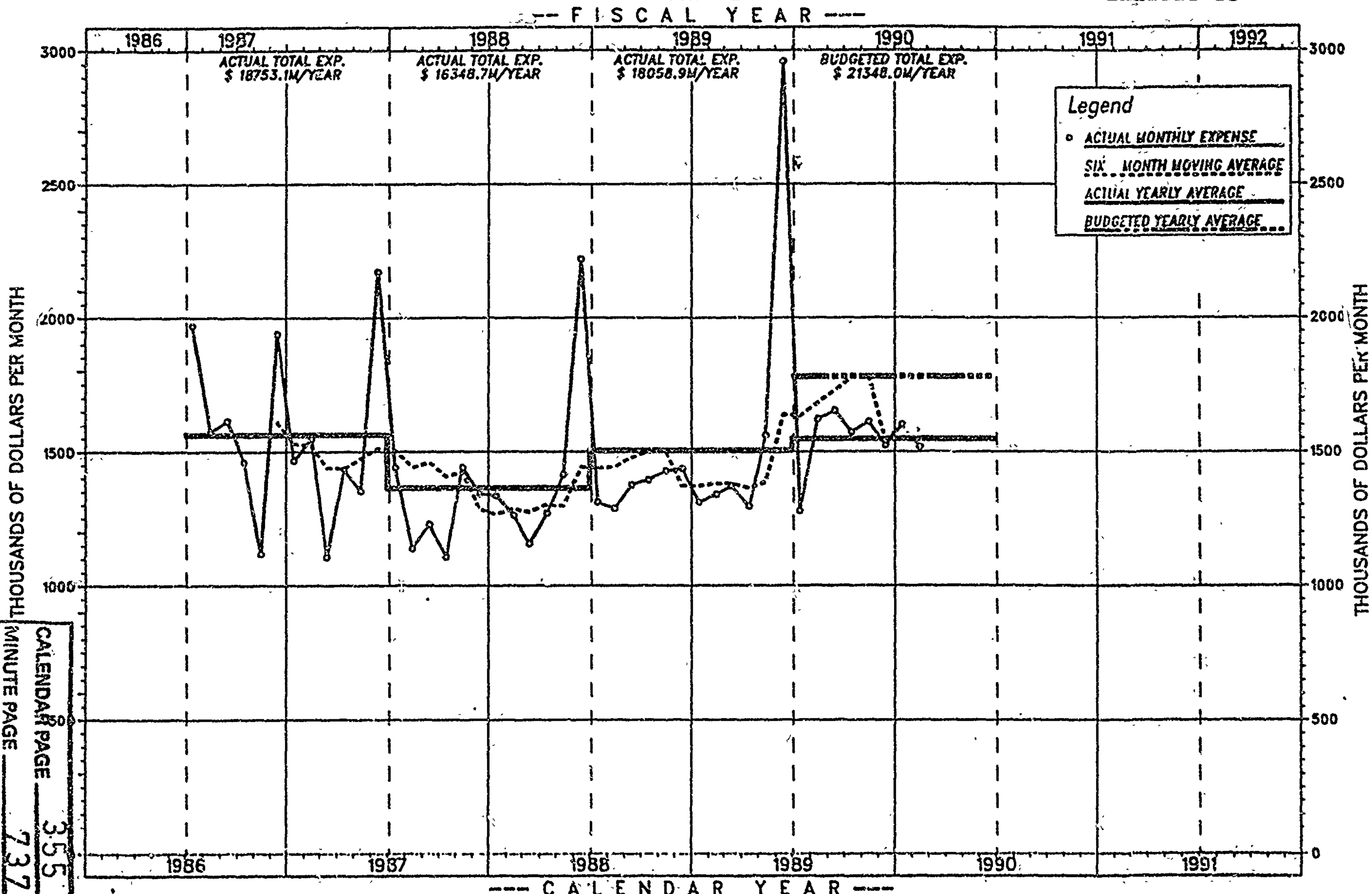
L O N G   B E A C H   U N I T

MANAGEMENT PROGRAM

TOTAL

PROGRAM E

EXHIBIT 13



March 21 1990

CALENDAR PAGE 355.19

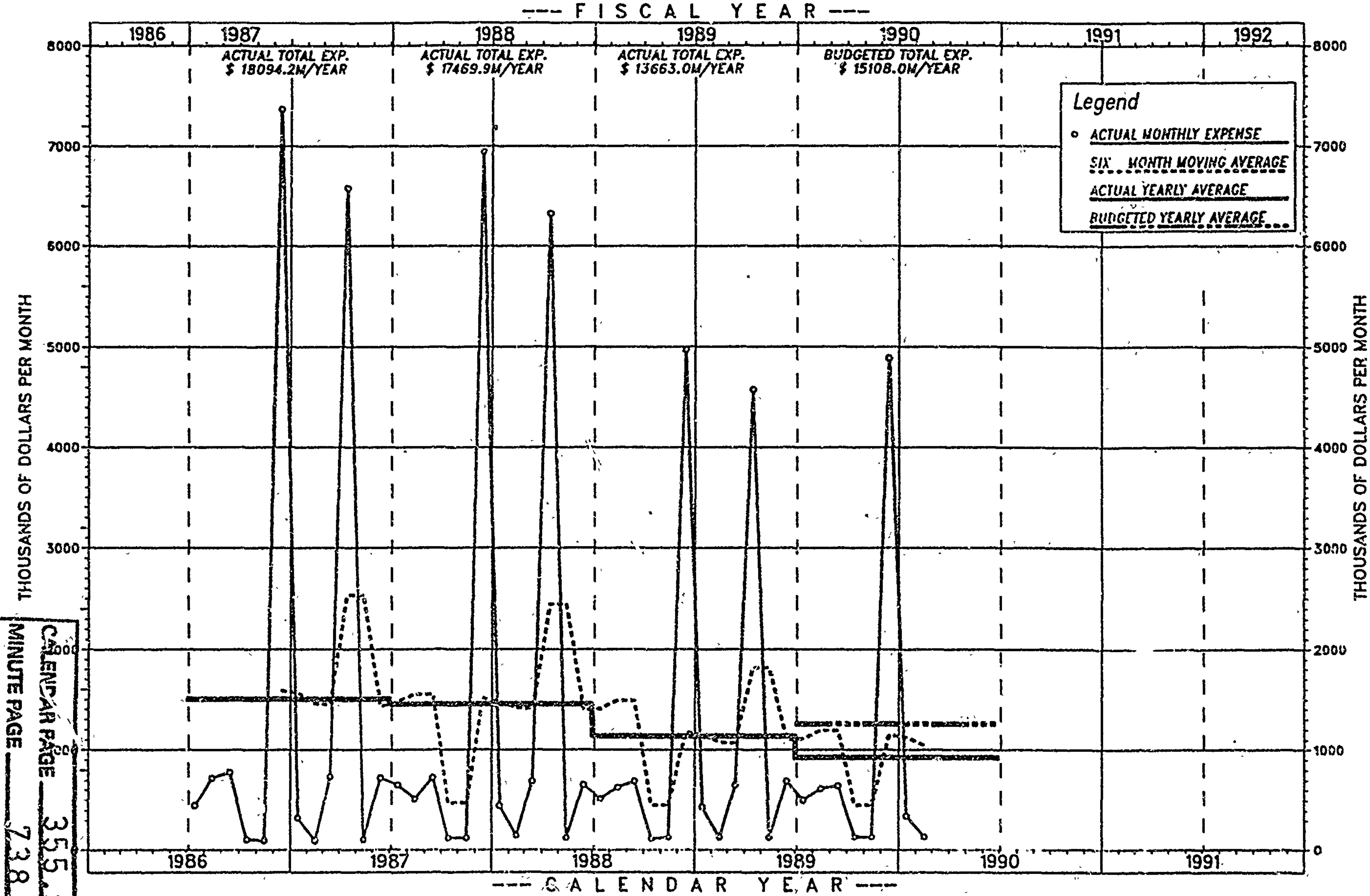
MINUTE PAGE 737

LONG BEACH UNIT

TAXES, PRMTS, & RENTAL PROGRAM — TOTAL

PROGRAM F

EXHIBIT 14



CALENDAR PAGE 355.2n

MINUTE PAGE 738

March 21 1990