UNION CARBIDE CORPORATION
Chemicals & Plastics Development Division
270 Park Avenue, New York 10017

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W. L. Carrick
R. H. Gregory (2)
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S. L. Tyler
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J. Winterhaler
D. Varoli
W. S. Young

A workshop on our Asbestos Business is scheduled to be held on Friday, October 11, 1968, at 10:00 a.m. in the 26th floor conference room. An outline of the planned discussion, along with the associated charts, is attached.

Your attendance and participation will be appreciated.

F. D. Dexter

FDD/lr
Att.
10-8-68

CALIDRIA ASBESTOS WORKSHOP

OCTOBER 11, 1968

CALIDRIA ASBESTOS WORKSHOP

October 11, 1968

Chart Number:

I. Introduction

A. Purpose
1. Review of performance versus plan, 1967 and 1968 year to date.
2. Review significant events since last review.
3. Outline alternative courses of action for the Calidria Asbestos business.
4. Present key facets of the recommended course of action.

B. Background of Calidria Asbestos Business
1. Organization. 1
2. Investment; GFI $3,285M Net Book Value $1,607M end 1968 (estimated) 2
3. Location, size and nature of deposit. 3
4. King City, California plant; wet benefication process.
5. Product line and major uses. 4
6. Major customers 1968; volume and product sold. 5

II. Performance vs. Plan

A. 1967
1. Total NIFS $1,609M vs. plan of $3,801M or 42.3% of plan. 6
2. Total Operating Income ($971M) vs. plan of $637M.

B. 1968
1. Total NIFS
a. For first 8 months $1,100M vs. plan of $1,763M or 62.3% of plan. 7
b. Estimate for year $1,800M vs. plan of $2,912M or 62% of plan.
2. Total Operating Income
a. For first 8 months ($490M) vs. plan of ($635M) or 77.1% of plan (i.e. 22.8% better than plan).
b. Estimate for year ($741M) vs. plan of ($812M) or 91.2% of plan (i.e. 9% better than plan).
3. NIFS performance vs. plan for first 8 months by market area. 8

III. Significant Events Since Last Review (April, 1967) — Chart No.

A. Factors Influencing Performance
1. Penetration into paper market failed to meet expectations. — 9
2. Restricted operations resulted in high plant costs.
3. Growth of resin grade products slow.
4. Lack of exposure; only recently being corrected.

B. Other Significant Events
1. R-G 244 (silica treated asbestos) semi-works plant started up in first quarter. Capital cost of semi-works plant $60M.
2. Yield of fibre from ore raised from average of about 48% to about 60% during last year and a half.
3. Finished product inventories reduced from 6,460 tons at start 1968 to 2,920 tons at end of August.
4. Montello, Inc., set up as distributor to oil well drilling industry and Harrisons & Crosfield Ltd. set up as west coast sales agent for resin grade products.
5. Trade name "Calidria" adopted.
6. Initiation and pursuit of active merchandizing program.

IV. Alternative Courses of Action for the Calidria Asbestos Business

A. Major Alternatives — 10
1. Continue to Operate
   a. Principal advantages are that (1) over the long run the business can be profitable and (2) carve out production payment could be used to enhance cash flow.
   b. Principal disadvantage is that cost elements of a slowly growing business would continue.
2. Divest in Part; Form a Joint Venture with Another Company
   a. Principal advantages are that (1) it would provide better continuity than following alternatives and (2) UCC's continued participation could make partial divestment easier than total divestment.
   b. Principal disadvantages are that (1) the venture could be difficult to run effectively and (2) UCC would continue to bear a share of overhead and plant costs.
3. Divest During 1969 with Goal of Completion by Mid-Year.
   a. Principal advantage would be the opportunity to maximize return from the divestment.
   b. Principal disadvantage is the continuation of overhead and plant costs during part of 1969.

Chart No.

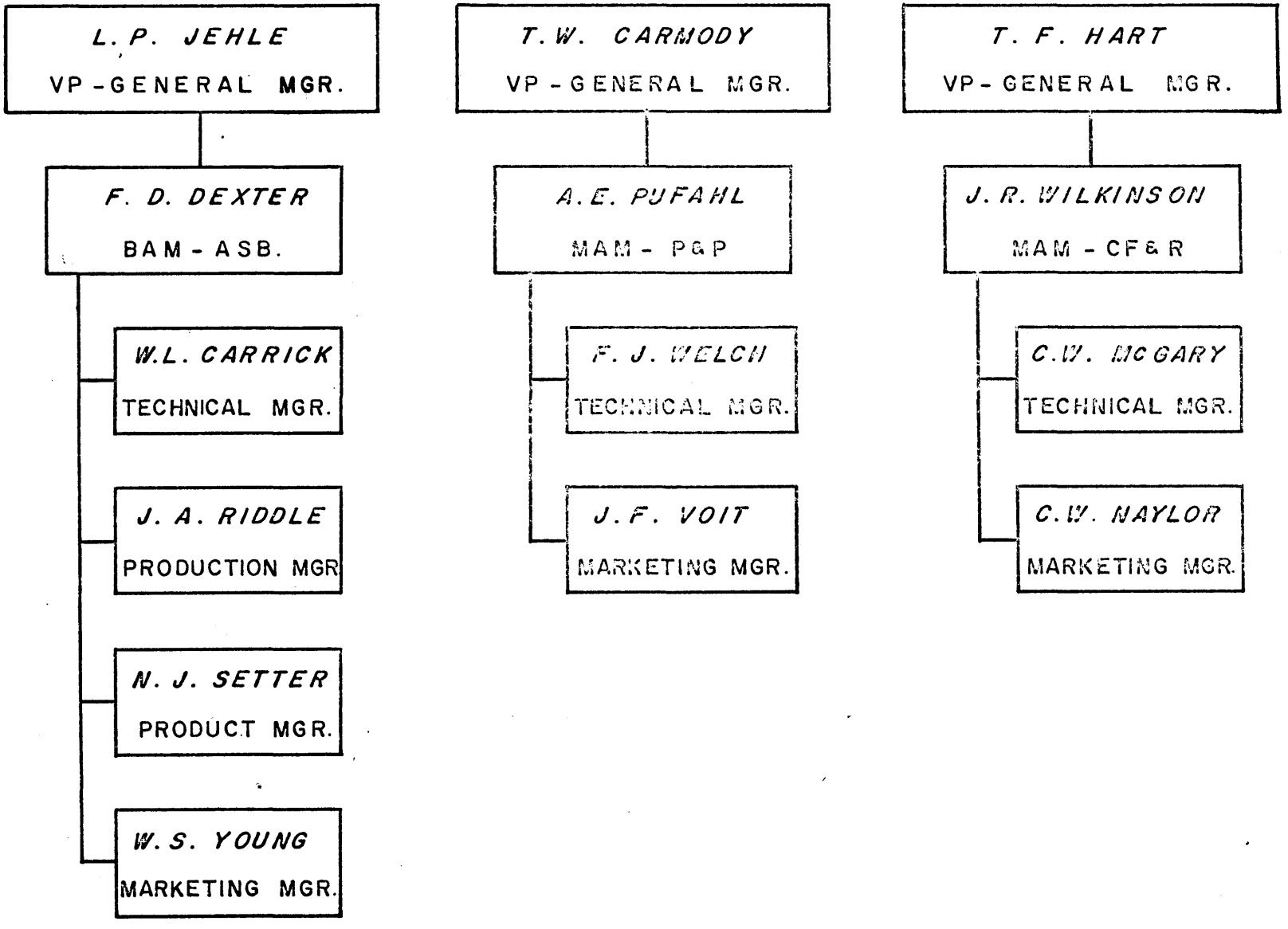
4. Divest Before End of 1968
   a. Principal advantage is elimination of overhead and plant costs in 1969.
   b. Principal disadvantage is difficulty in divesting quickly on other than a distress sales price basis; it approaches alternate 5 in effect.
5. Immediate Abandonment
   a. Principal advantages are (1) its simplicity and (2) the rapid curtailment of overhead and plant costs.
   b. Principal disadvantages are (1) disruptive effect on customers who buy asbestos and other UCC products and (2) difficulty of salvaging any income from the sales of the assets.

B. Key Facets of Recommended Alterative (#3 above)
1. Baseline economics; continue to operate as a unified business 11
   - 1969 est. ROII ($135M)
   - 1973 est. ROII $1,812M (adjusted for effect of depletion allowance)
   - 10 yr. NPV (10% discount rate with 1969 year 1) is $4.5MM.
2. Major Action Required 12
   a. Prepare brochure for prospective purchasers.
   b. Consolidation of asbestos activities.
   c. Set up Calidria Asbestos as a separate wholly owned subsidiary of UCC and organize it accordingly.
   d. Select list of prospective purchasers or select a suitable intermediary.
   e. Define the terms for divestment
3. Key Points in Major Action Items
   a. Brochure
      - Physical assets
      - Market picture
      - Technology (Process & Product)
      - Patents

      (Terms to be stated in cover letter)
   b. Consolidate activities
      - Marketing
      - Billing
      - Other accounting
   c. Subsidiary
      - Mechanics
      - Tax factors
      - Operational factors
   d. Prospect list; desirable characteristics of potential purchaser
      - Marketing capabilities
      - Technical capabilities
      - Captive use
      - Cash position
      - Profit goals
      - Diversification goals

e. Terms
- Cash, royalties or both?
- Price range
- Stock exchange possibilities
- ABC type transaction

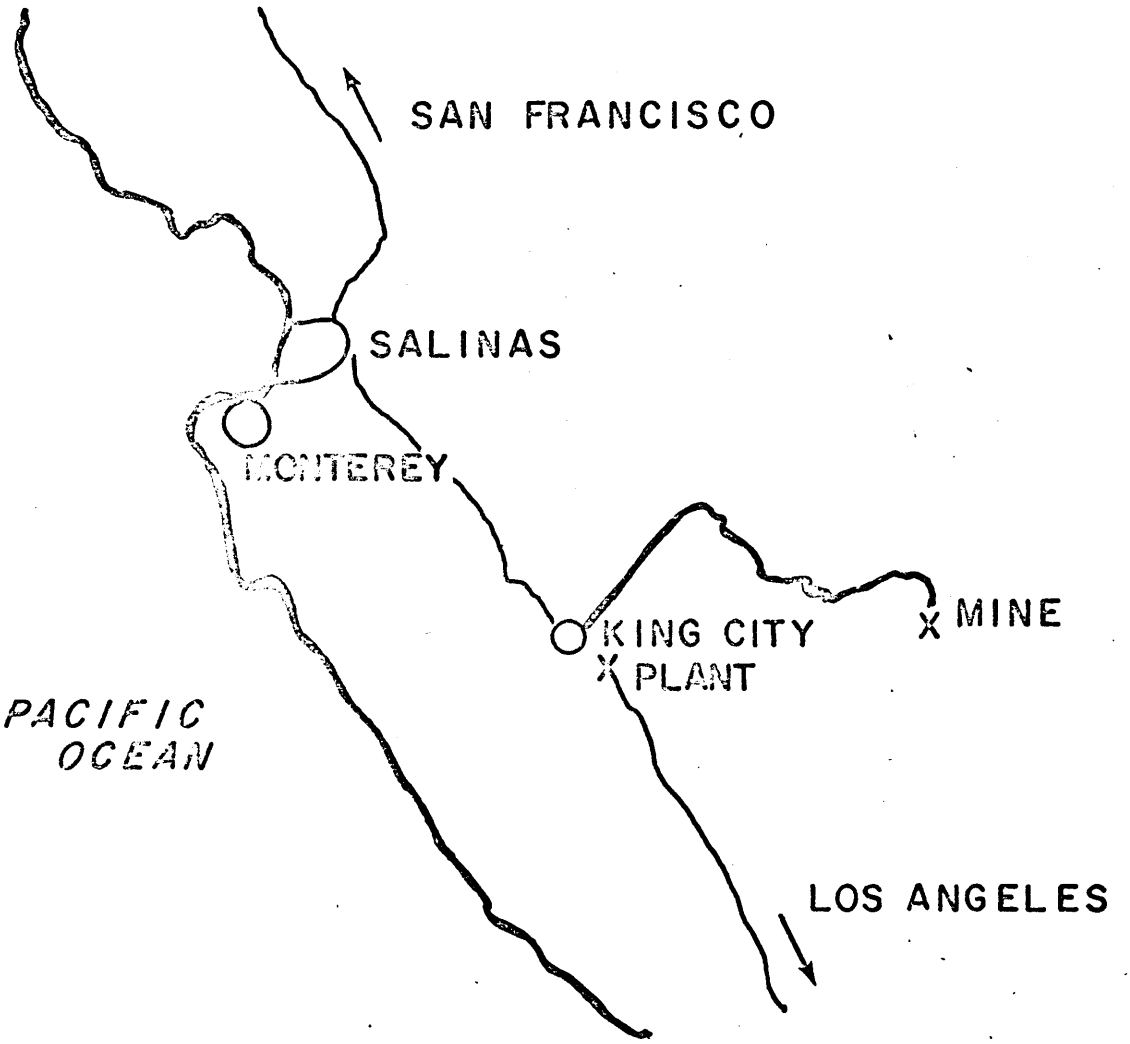
C. Other Considerations


L. P. JEHLE
VP - GENERAL MGR.
F. D. DEXTER
BAM - ASB.
W.L. CARRICK
TECHNICAL MGR.
J. A. RIDDLE
PRODUCTION MGR
N. J. SETTER
PRODUCT MGR.
W. S. YOUNG
MARKETING MGR.
T. W. CARMODY
VP - GENERAL MGR.
A. E. PUFAHL
MAM - P&P
F. J. WELCH
TECHNICAL MGR.
J. F. VOIT
MARKETING MGR.
T. F. HART
VP - GENERAL MGR.
J. R. WILKINSON
MAM - CF&R
C.W. McGARY
TECHNICAL MGR.
C.W. NAYLOR
MARKETING MGR.

UCC 001357

ASBESTOS INVESTMENT M$

	GFI	NET BOOK VALUE 12/31/68 (EST.)
PLANT & EQUIPMENT	2,600	922
PLANT LAND	238	238
MINERAL RIGHTS & LAND	447	447
	3,285	1,607


SAN FRANCISCO
SALINAS
MONTEREY
KING CITY
PLANT
MINE
PACIFIC
OCEAN
LOS ANGELES

CALIDRIA ASBESTOS PRODUCT LINE

PRODUCT	SELLING PRICE, $/TON*	PRINCIPAL USE
SG-100	50	FLOORING (PELLETS)
SG-144	55	FLOORING (OPENED PRODUCT)
SG-200	75	DRILLING MUDS (SUPER VISBESTOS)
SG-130	70	TAPE JOINT ADHESIVES
SG-210	82	TAPE JOINT ADHESIVES
R-G 110	115	UNDERCOATS
HIGH PURITY	120	PAPER (OPEN AND PELLET)
R-G 144	200	ADHESIVES AND SEALANTS
T-135	300	PAPER (OPEN AND PELLET)
R-G 244	1200	POLYESTER RESINS

* F. O. B. KING CITY, CALIFORNIA

UCC 001360

PRINCIPAL CUSTOMERS

NAME	PRODUCT	THRU AUGUST, 1968 M#	M$
BOISE CASCADE	HPP	2400	131
CONWED	HPP	1200	60
LONGVIEW FIBER	HPO	1200	66
BROWN COMPANY	T-135	364	53
RIEGEL PAPER	T-135	360	52
KENTILE	SG-100	4900	123
DAUBERT	R-G 110	900	52
J. W. MORTELL	R-G 144	242	29
MONTELLO	SUP. VISB.	1400	48
		12966	614
OTHER CUSTOMERS (40 ABOVE CUTOFF)		7692	386
		20658	1100

ASBESTOS O & R

1967

	PLAN, M$	ACTUAL M$	ACTUAL % OF PLAN
NIFS	3,801	1,609	42
PRDT COST & DIST.	2,090	1,648	82
GROSS INCOME	1,711	(39)	--
OVERHEAD	1,074	932	87
OPER. INCOME	637	(971)	--
ROI INCOME	327	(1,346)	--

1968

ASBESTOS BUSINESS O & R

M$

	8 MONTHS		YEAR	
	ACTUAL	PLAN	EST. ACT.	PLAN
NIFS	1,100	1,763	1,800	2,912
PRDT COST & DIST.	948	1,713	1,515	2,695
GROSS INCOME	152	50	285	217
OVERHEAD	642	685	1,026	1,029
OPER. INCOME	(490)	(635)	(741)	(812)

ASBESTOS

SALES BY MARKET AREA, M$

MARKET AREA	YEAR 1967	1968 8 MOS. PLAN	1968 8 MOS.	1968 8 MOS. % PLAN
PULP & PAPER	1,042	1,090	617	57
FLOORING	343	232	180	78
NEW POLYMERS	99	182	186	102
EXPORT	125	269	117	43
TOTAL	1,609	1,773	1,100	62

FACTORS INFLUENCING PERFORMANCE

1. SALES INTO PULP AND PAPER MARKETS
2. HIGH UNIT COST - LOW PRODUCTION
3. SLOW GROWTH OF RESIN GRADE PRODUCTS
4. LACK OF EXPOSURE (EXCEPTING PAPER AREA)

ASBESTOS PERFORMANCE AND PROJECTIONS, PAPER MARKET

M$

	1967
PLAN	2,651*
ACTUAL	1,167*

	1971 PLAN
APRIL 1967	6,180
FEB. 1968	3,700 (INTERPOLATED)
JULY 1968	1,362

* INCLUDES EXPORT (ACTUAL $125M)

SIGNIFICANT EVENTS

1. START UP OF R-G 244 PLANT

2. IMPROVED RAW MATERIAL EFFICIENCY

3. REDUCTION OF FINISHED PRODUCT INVENTORY

4. MONTELLO AS A DISTRIBUTOR; HARRISONS & CROSFIELD AS SALES AGENT

5. TRADE NAME "CALIDRIA" ADOPTED

6. ACTIVE MERCHANDIZING PROGRAM

1. OVERHEAD REDUCTION

2. TOO MANY PROGRAMS

3. COMMITMENT IN MANY PROGRAMS

4. CALIDRIA ASBESTOS DIVESTABLE

5. GOOD RETURN POSSIBLE

ALTERNATIVE COURSES OF ACTION

CALIDRIA ASBESTOS BUSINESS

ALTERNATE	MAJOR ADVANTAGE	MAJOR DISADVANTAGE
1. CONTINUE TO OPERATE	LONGER TERM PROFITABILITY	CURRENT COSTS
2. DIVEST IN PART (JOINT VENTURE)	INSURE CONTINUITY; EASIER TO PARTIALLY DIVEST	DIFFICULTY IN RUNNING AND SOME COSTS
3. DIVEST DURING 1969	OPPORTUNITY TO MAXIMIZE RETURN FROM SALE	SOME COSTS IN 1969
4. DIVEST BEFORE END 1968	ELIMINATION OF 1969 COSTS	PROBABLE LOW RETURN
5. IMMEDIATE ABANDONMENT	QUICKEST CURTAILMENT OF COSTS	DISRUPTIVE EFFECT ON CUSTOMERS; LOWEST RETURN

UCC 001369

ASBESTOS PROJECTED ECONOMICS

	1969	1971	1973
NIFS	3,210	4,455	5,850
PRDT COST & DIST.	2,155	2,525	3,080
GROSS INCOME	1,055	1,930	2,770
OVERHEAD	925	1,135	1,325
OPER. INCOME	130	795	1,445
ROII	(135)	530	1,180
ROII ADJ. FOR DEPLETION	(135)	834	1,812

NPV 1969 THRU 1978, AT 10% DISCOUNT RATE = $4,517M (ASSUMES PLANT CAPACITY REACHED IN 1973 AND NO CHANGE THRU 1978)

MAJOR ACTIONS REQUIRED

A. PREPARE BROCHURE

B. CONSOLIDATE ACTIVITIES

C. SET UP CALIDRIA ASBESTOS AS SUBSIDIARY

D. SELECT LIST OF PROSPECTS OR A SUITABLE INTERMEDIARY

E. DEFINE TERMS FOR DIVESTITURE

POSSIBLE BASES FOR ESTABLISHING

ASKING PRICE

BASIS	AFTER TAX MM$	BEFORE TAX MM$ REQUIRED	
		AS ORDINARY INCOME *	AS CAPITAL GAINS**
NET BOOK VALUE	1.6	3.2	2.2
OPERATING LOSSES, TOTAL PROJECT	4.5	9.0	6.0
EST. 10 YEAR NPV	4.5	9.0	6.0
OPERATING LOSSES PLUS GFI	7.7	15.4	10.1
10 x AVG. EST. NET NEXT 10 YEARS	8.6	17.2	11.5
10 x EST. NET, 1ST YEAR MAX NIFS	9.0	18.0	12.0

* TAX RATE ASSUMED AS 50%

** TAX RATE ASSUMED AS 25%

UCC 001372

1967 NIFS VERSUS PLAN

BY MARKET AREA

MARKET AREA	1967 NIFS	PLAN	%
PULP & PAPER	1,047	2,260	46
C. F. & R.	343	950	36
NEW POLYMERS	99	200	48
EXPORT	125	390	32
TOTAL	1,609	3,800	42

ASBESTOS

OPERATION EXPENSE

YEAR	NIFS	PLANT COST	R&D	ROII	NET
1960	0	171	181	(532)	(256)
1961	0	113	156	(360)	(173)
1962	0	145	407	(658)	(316)
1963	9	388	708	(1340)	(646)
1964	140	458	575	(1480)	(710)
1965	447	655	N.A.	(1500)	(718)
1966	1146	928	N.A.	(1117)	(535)
1967	1608	1342	535	(1345)	(645)
1968 (Est.)	1800	1515	405	(1000)	(480)
Total				(9332)	(4479)

UCC 001374

STATUS OF BUSINESS	STATUS OF PROSPECTS	TIME
1. CASH GENERATED* $< O$	1. ONE OR MORE GOOD OFFERS ($6MM PLUS)	1. END 1968
2. CASH GENERATED* $\geq O$	2. ONE OR MORE FAIR OFFERS ($3-6MM)	2. END 1ST QTR. 1969
3. $OI \geq O$	3. ONE OR MORE POOR OFFERS ($2-3MM)	3. END 1ST HALF 1969
4. $ROII \geq O$	4. NO OFFERS ABOVE REAL ESTATE PLUS WRITE-OFF VALUE ($\sim$$1MM)	4. END 1969

*CASH GENERATED = AFTER TAX OPERATING INCOME PLUS DEPRECIATION

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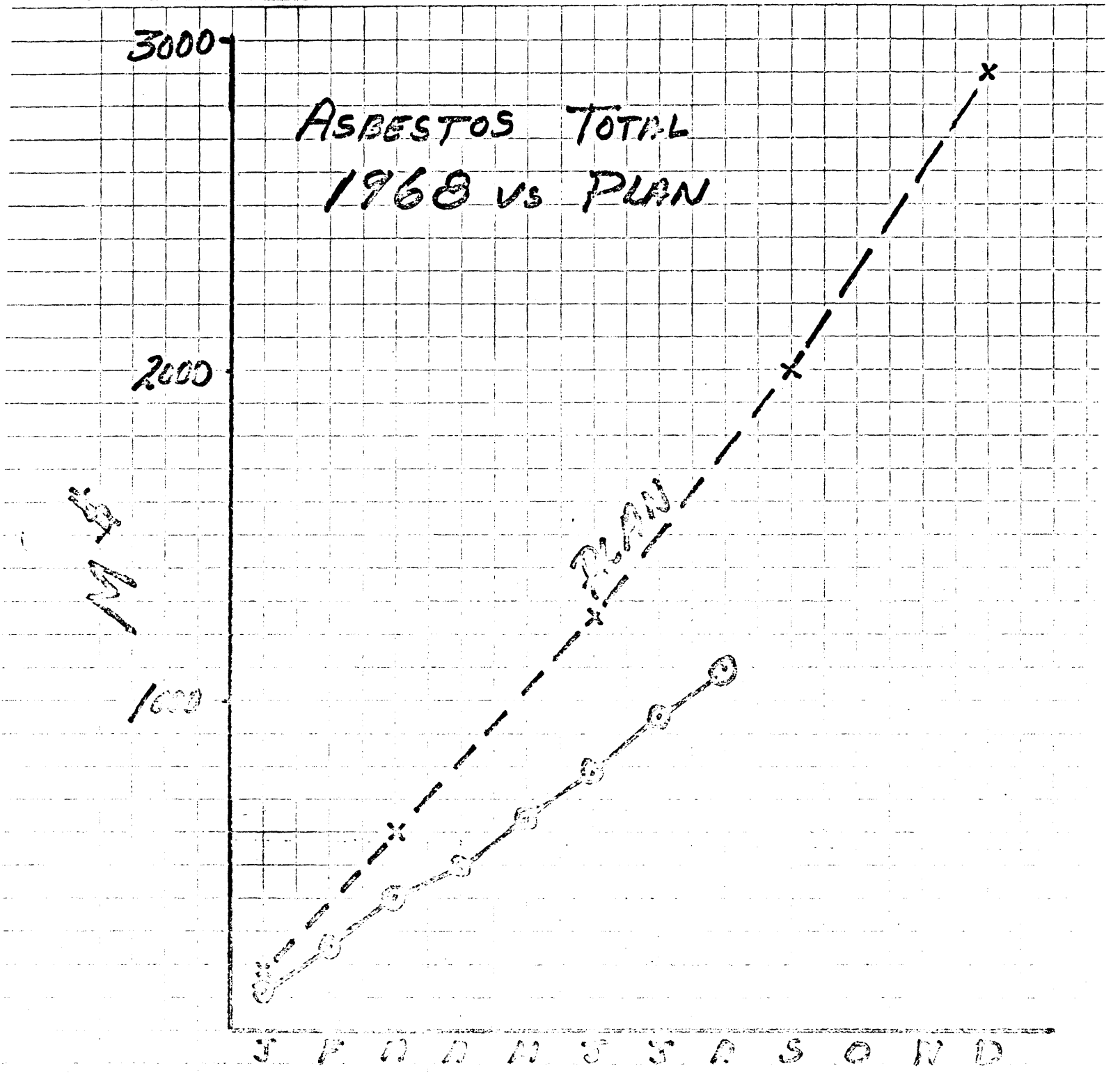
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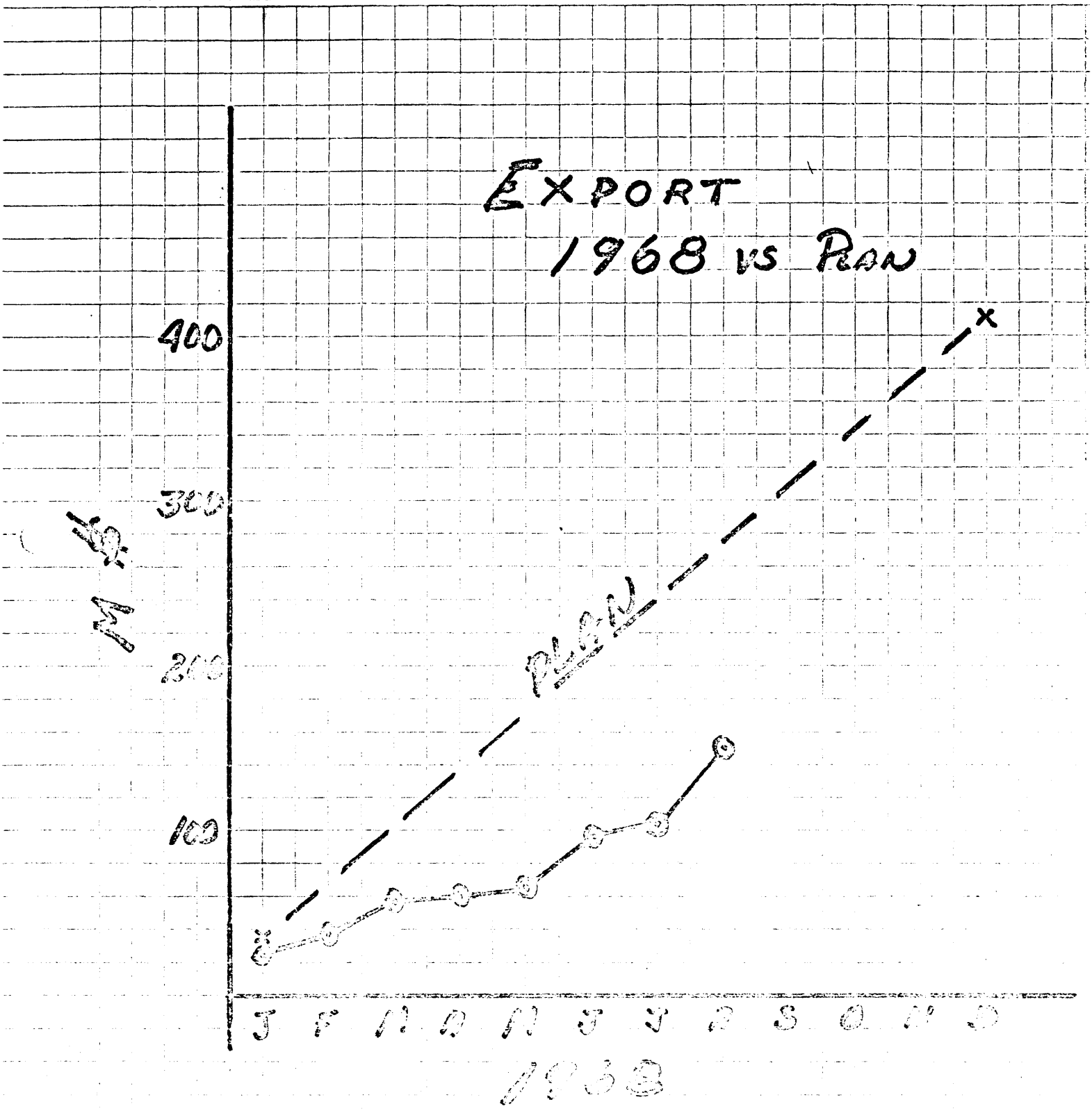
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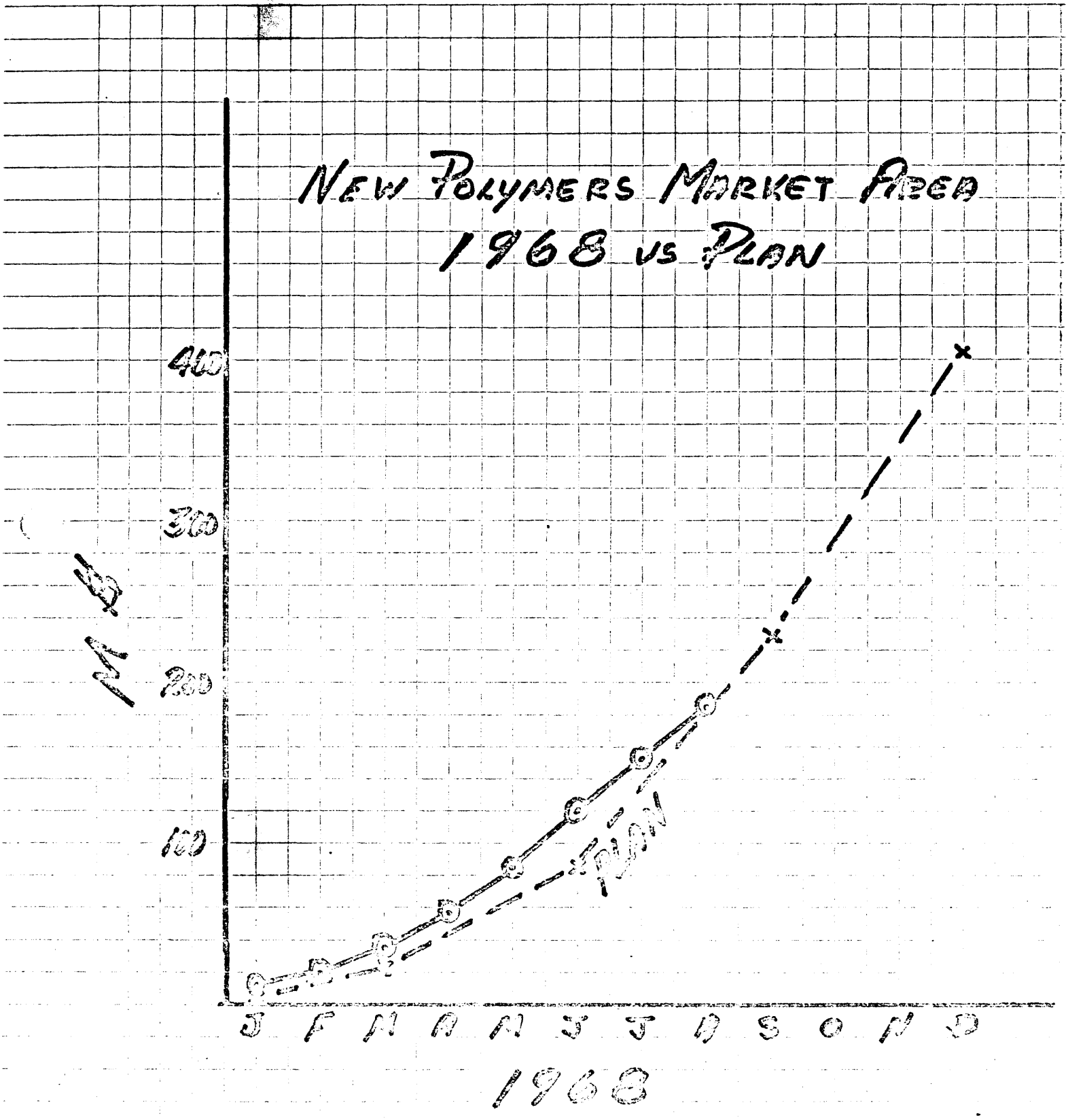
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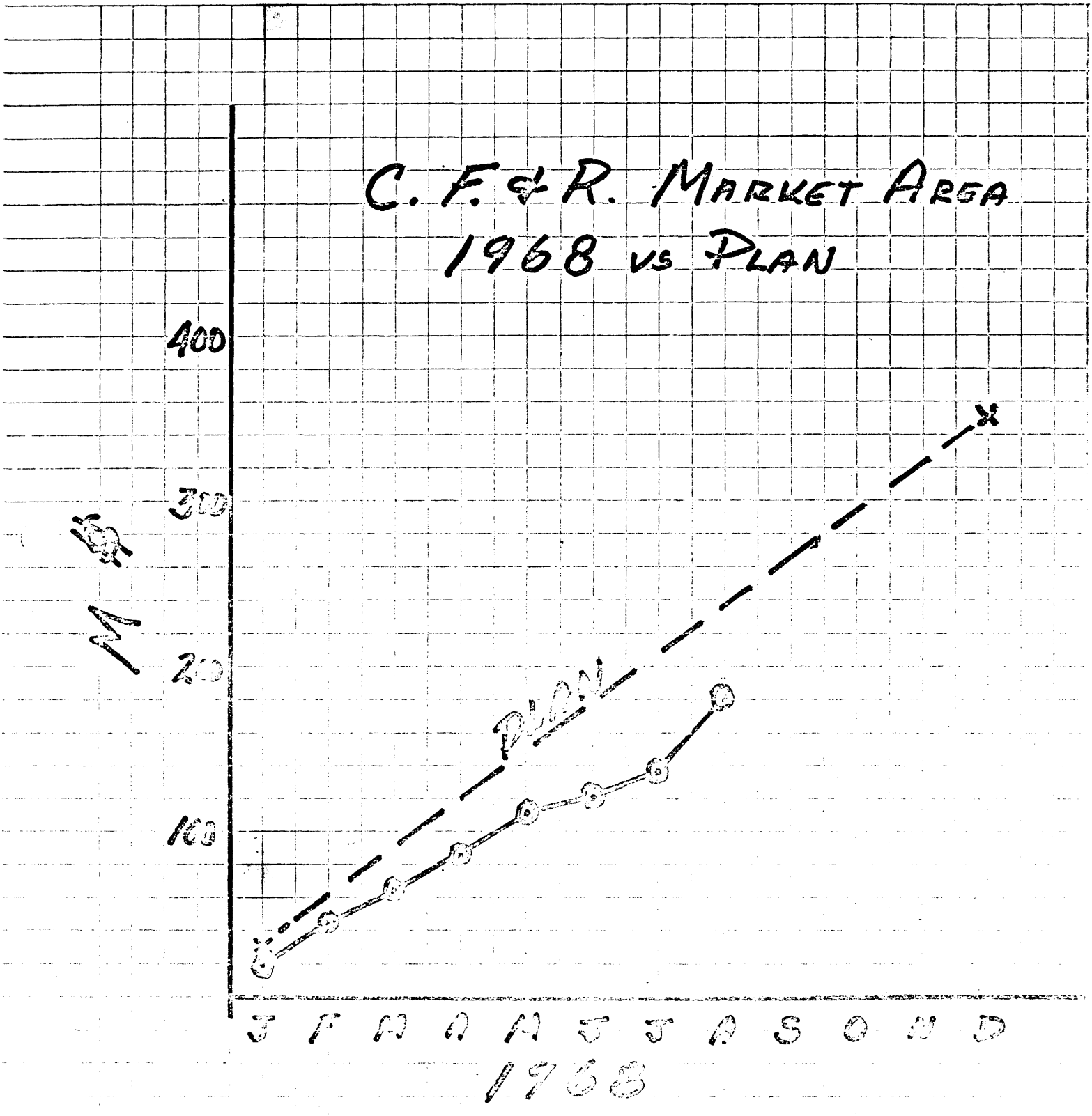
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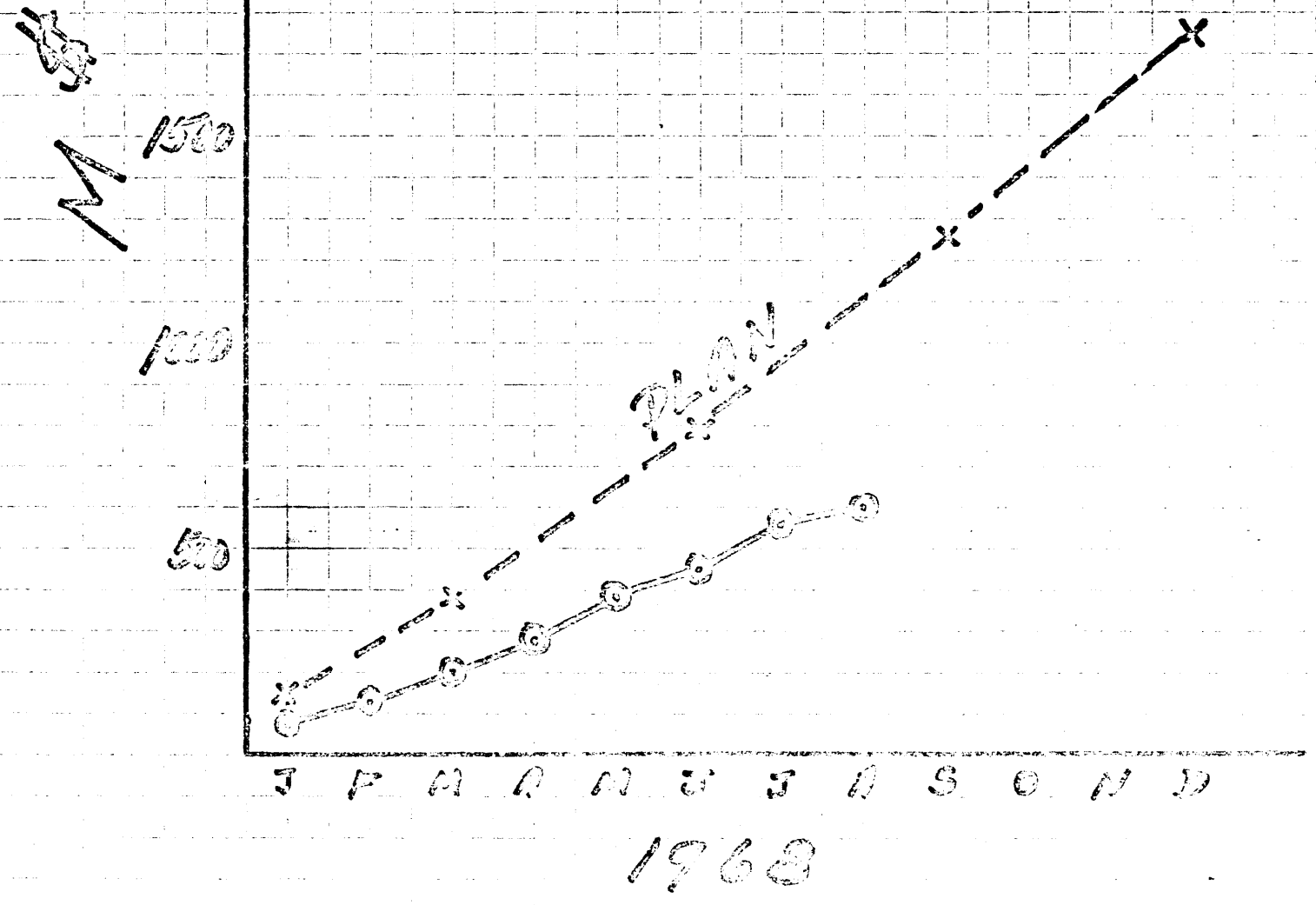
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PULP AND PAPER MARKET AREA
1968 VS PLAN



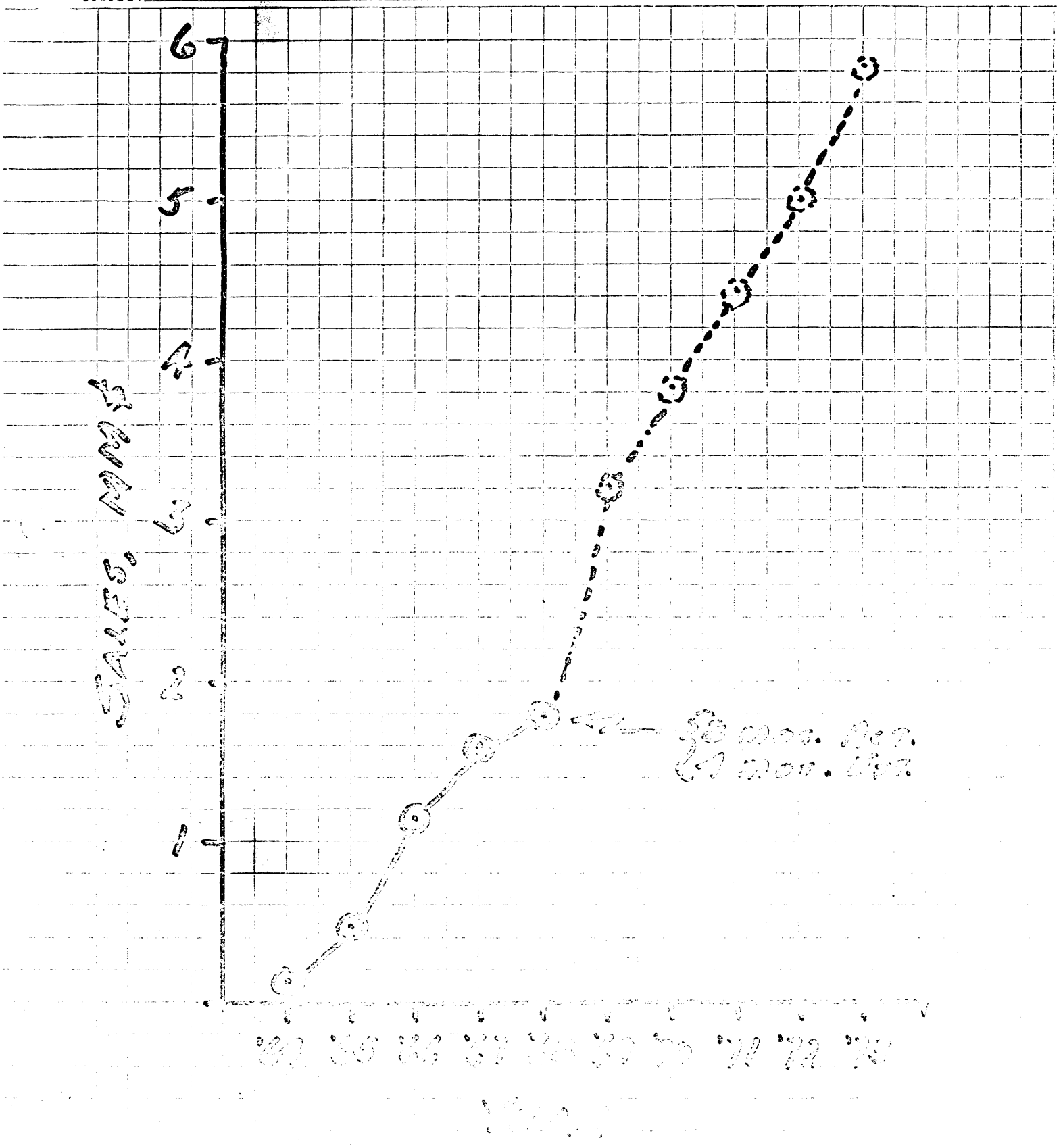
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1. UCC is considering divestment of the Calidria Asbestos business and will plan to do so if a financially attractive and otherwise suitable offer is received. The business will continue to be actively conducted by UCC while this is being investigated and it is anticipated that, in the event the business is sold, the purchaser will follow the market pattern set by UCC.

2. UCC's decision to consider an offer for the Calidria Asbestos business is made on the bases that:

    a. UCC is aiming to concentrate its newer program efforts in areas more directly served by UCC's special expertise and technology. Although the Calidria Asbestos business has an attractive financial future, it is not as closely related to UCC's basic skills as are many of its other programs.

    b. The Calidria Asbestos business is a clearly defined, separate activity of UCC and thus represents a well structured divestment opportunity. This is not true of some businesses, which form a part of a large plant or operational complex.

    c. UCC's Calidria Asbestos assets, consisting of plant, mineral reserve, patents and customers, are tangible and of significant value. UCC thus believes that a good return can be realized from sale of this business.

3. UCC fully intends to continue prosecuting the Calidria Asbestos business activity and will provide a continuing supply of material to all customers during this period.