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To: R. T. Ferrell

From: J. W. Ware
Date: April 16, 1987

Interoffice Communication

Subject: ABERDEEN MONTHLY PROGRESS REPORT
MARCH, 1987

VISTA

There were two first aid cases and three medical treatment cases recorded during the month of March. One of the medical treatment cases required restricted work activities. As of March 31, 1987, the plant had operated 2,824 days or 3,629,206 manhours without a lost time injury.

PVC resin production for March was 34.1MM pounds. Mechanical downtime in the reactor areas was due primarily to agitator seal repairs on 400 and 743, safety disc replacement on 743, spray nozzle revisions to 741 and 742, agitator gearbox repairs on 742 and 745, new module Modicon replacement and recovery compressor repairs. Resin production year-to-date totaled 211.9MM pounds. The VCM efficiency for March was 1.01525 pounds of VCM per pound of PVC produced versus a 1.00208 standard. Year-to-date VCM efficiency is 1.01139.

Compound production for March was 7.3MM pounds. Line I and Line III operated thirty-one days and Line V operated 14.5 days during the month. Production was limited primarily by product changes and maintenance on Line V. Year-to-date compound production was 42.7MM pounds. Quality performance for flexible compounds was 1.3% off-grade of which 94% was due to mill scrap. "BC" production was 0.9%.

Dry blend production was 4.6MM pounds for March and 27.1MM pounds fiscal year-to-date. Production was limited primarily by product changes and quality control problems. Quality performance for the month was 97.6% customer grade.

The plasticizer unit operated thirty-one days in March to produce 2.0MM pounds. Year-to-date plasticizer production is 11.4MM pounds.

A one-day training course on problem solving techniques and involvement teams was conducted during March for Vinyl and Laboratory personnel. The first maintenance involvement team conducted a management presentation and a new team was formed in the warehouse.

Total energy consumption for March was 116.861 MMM BTUs. The energy consumption per pound of product was 2434 BTUs, resulting in an adjusted CMA reduction of 52.3%. The adjusted CMA reduction for fiscal 1987 year-to-date is 53.9%.

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The total plant variable cost variance for March was $489.9M unfavorable, resulting from an overall unfavorable price variance of $369.4M and a net unfavorable efficiency variance of $120.5M. The total fixed cost variance for March was $59.5M favorable.

J. W. Ware

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DISTRIBUTION

HOUSTON	- J. D. BURNS
	- R. E. LEHMKUHL
	- R. T. FERRELL
	- R. D. GAMBLIN
	- J. J. LANGFORD
	- R. E. SWANTKOWSKI
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	- C. M. STARKS
OKLAHOMA CITY	- HARRY GARRISON
LAKE CHARLES VCM PLANT	- DICK CONRAD
LAKE CHARLES CHEMICAL PLANT	- J. A. DEBERNARDI (COVER LETTER ONLY)
	- T. H. HUFFMAN (COVER LETTER AND SAFETY PORTION)
BALTIMORE	- R. W. SEYMOUR (COVER LETTER AND SAFETY PORTION)
HAMMOND	- J. B. MAHER (SAFETY PORTION ONLY)
ABERDEEN	- JF, JWW, DWH, PJK, TFL, RAF, KLF, RAM, VEM, HGC, CWT, REP, VLT, JEL, JGC, RBN

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SAFETY - J. V. UPTAIN

Occupational Injuries	March	Fiscal Y.T.D. 1987	Fiscal Y.T.D 1986
First Aid	2	6	11
OSHA Recordable	3	4	3
Total Injuries	5	10	14
Number of Restricted Workday Cases	1	1	2
(RWC Rate)	(4.9)	(0.8)	(1.7)
Number of Lost Workday Cases	0	0	0
(LWC Rate)	(0.0)	(0.0)	(0.0)
Injuries by Department			
Vinyl Operations	1	2	3
Compound Operations	1	1	3
Maintenance	1	5	5
Laboratory	0	0	0
Receiving/Warehouse	2	2	0
Office	0	0	3
Totals	5	10	14
Injuries by Type			
Cuts and Abrasions	1	5	4
Eye Injuries	1	1	2
Burns	0	0	4
Bruises	0	0	1
Strains/Sprains	3	4	1
Stings	0	0	0
Other	0	0	3
Totals	5	10	15
Non-Occupational Injuries			
Lost Workday Cases	0	2	3
Days Lost	0	11	35

Safety Record

Last lost time injury	7/5/79
Days since -	2,824
Manhours since -	3,629,206

OSHA Recordable Injuries

Three OSHA recordable injuries occurred during the month. One of them, a restricted workday injury, was a back sprain suffered by a compound employee while charging bags of resin into the dry blend master batch system.

The two medical treatment injuries involved: a lacerated finger, pinched between metal shelving and the shaft of a motor being moved by a warehouse supervisor, and a foreign object lodged in the eye of a mechanic who was opening the bottom manway of a vinyl reactor.

SAFETY - Continued

Training

Topics for the plant safety meetings during the month included: Chlorine Handling Safety, Off-the-Job Safety, Chemical Health Hazards, Boating Safety, Driving Safety, and Maintenance Weekly Safety and Job Review.

Health

Activity for the month included routine dosimetry (shown below) and the completion of annual, medical health screening (van).

Chemical	PEL		PEL	
	Number	Percent	Number	Percent
VCM	74	97.4	2	2.6
Lead	22	100.0	0	0.0
Total Particulates	2	100.0	0	0.0

One of the VCM overexposures occurred without respiratory protection.

QUALITY IMPROVEMENT PROCESS - R. B. Newton

The Vinyl Department and Laboratory attended a one-day training course on problem solving techniques and involvement teams.

Drawings of the revisions to the 600 series silo hook-up station (as recommended by the vinyl cross-contamination team) were issued for review.

An involvement team was formed to improve the handling of customer returns at the plant. This came as a result of studies by warehouse personnel showing that substantial savings are possible from improved handling of customer returned material.

The maintenance involvement team that prepared the preventative maintenance program for the new plant crane presented that program to management.

In Compound, SPC charts were started to track the dry blend transfer time and also Line I and III plasticizer filter pressure differentials. Vinyl started charts on reactor turnaround times.

VINYL - D. W. Hollis, J. M. Edwards

Safety

The Vinyl and Yard Departments had one accident which resulted in a sprained knee (first aid).

Shift safety meeting topic for the month was Accident Prevention Off the Job.

Production	March	Y.T.D.(Fiscal 87)
1. Production, MM Lbs.	34.1	211.9
2. Daily Production Rate, M Lbs./C.D.	1100	1175
3. Total Charges	915	5346
4. Charges, Reactor Batches/C.D.	29.5	29.4
5. Reactor Stream Factor	93.3	91.1
6. Dryer Rate, Average Lbs./Hr.	9816	10306
7. Dryer Stream Factor	58.4	59.1
8. Accounting Days	31	182

Vinyl Department production for March was 34.1MM pounds.

Reactors

The reactor stream factor for March was 93.3%. Downtime in the reactor area occurred as follows:

1) Operational Downtime: Accounted for 49.3% of the total downtime and was due to reactor recovery scheduling conflicts, downtime due to rinsing the chem wash tank, waiting on particle size information before charging, reactor manway O-ring failures and downtime associated with test runs and reactor inspections.

2) Maintenance Service Downtime: Accounted for no downtime because the cleaning of the reactor AMS injection ports and inert vent lines was accomplished while the reactors were normally down for other reasons.

3) Maintenance Repair/Revision Downtime: Accounted for 50.7% of the total downtime and was due to changing the agitator seal on D400 and 743, changing various chem wash and rinse valves on 742, 300, 400, 500 and 600, changing the safety disc on 743, adjusting the spray heads on 742 and 741, repair 742 and 745 gearbox oil leaks, replacing the new module Modicon and rebuilding "B" recovery compressor.

Dryers

The dryer stream factor for March was 58.4%. Downtime in the dryer area occurred as follows:

1) Reactor Limited Production: Accounted for 93.5% of the total downtime. Dryers were shut down when possible for energy conservation.

2) Operational Downtime: Accounted for 3.0% of the total downtime and was due to centrifuge plugging, burner flameouts, dryer cleaning and transfer activator problems.

VINYL - Continued

Dryers - Continued

3) Maintenance Repair/Revision Downtime: Accounted for 3.5% of the total downtime and was due to changing out #6 centrifuge, #5 and #7 activator problems, #6 star valve problems, #8 air sweep, air compressor failure, and #7 Sweco motor.

Product Quality Summary

Resin Type	Prime	"B"	"H"	% of Total Production
5265	2,625,381	-	-	7.7
5305	3,007,330	-	-	8.8
5385	15,759,691	-	-	46.2
5415	9,198,997	-	-	27.0
5425	2,321,500	-	-	6.8
5465	(5,380)	-	-	0.0
Debox	-	917,480	-	2.7
Off-Grade	-	156,340	-	0.5
Sifter Overflow	-	-	131,118	0.3
Pond Resin	-	-	-	0.0
Total	32,907,519	1,073,820	131,118	100.0

Quality performance for March was 99.7% customer grade with 0.3% "H" grade production.

A total of eight railcars were shipped as "B" grade during the month which represented 6.0% of the 133 total resin hopper cars shipped.

Load Date	Ship Date	Car No.	Customer	Product	Reason
02/02/87	03/06/87	RTMX 580088	Western Ag., TX	Debox	Quality
02/06/86	03/06/87	PTLX 41202	Wexford, WI	Debox	Quality
02/17/87	03/06/87	PTLX 41609	Capco Pipe, IL	Debox	Quality
02/28/87	03/11/87	PLWX 44279	Vulcan Plast., AL	Debox	Quality
03/12/87	03/24/87	PLCX 43861	Capco Pipe, IN	Debox	Quality
02/12/87	03/27/87	PLCX 43745	Apache Plast., CA	Debox	Quality
3/08/87	03/31/87	ACFX 52568	Wexford, WI	Debox	Quality
3/17/87	3/31/87	VIPX 45891	Western Ag., TX	Debox	Quality

The Vinyl area received thirty-two short lead time emergency type orders comprising 11% of the 292 Aberdeen resin shipments in March.

VINYL - Continued

Monthly Variable Cost Performance

Variable costs for the month were unfavorable at $487.2M resulting from an overall unfavorable price variance of $388.6M and an unfavorable efficiency variance of $98.6M. Resin variable cost for the month was 19.566 cents/lb. versus the budgeted 18.086 cents/lb.

The $388.6M unfavorable price variance was primarily attributed to higher than budgeted pricing for VCM, $432.9M.

The $98.6M unfavorable efficiency variance can be attributed mainly to the unfavorable efficiency variance of VCM, $68.9M.

VCM efficiency for the month was 1.01525 lbs. VCM/lb. PVC versus the budgeted 1.00208 lbs. VCM/lb. PVC.

YTD variable cost efficiency variances in the Vinyl Department totaled $322.2M unfavorable.

Energy Performance/Progress

1. Plant energy performance for March was 2434 BTU/lb.

General

1. Resin raw material in the 0744 account totaled $200.5M.

COMPOUND - P. J. Kober, J. E. Nickerson

Compound Production	Operating Days	Production (M Pounds) Month	Average Operating Day Rate	Fiscal Y.T.D.
Line I	31	2397	77	14302
Line V	14.5	697	48	4965
Line III	31	4206	136	23425
Total		7300		42692

Line I operated thirty-one days in March at an average rate of 77M pounds per day. Major items affecting production efficiency were: product changes, 66 hours; quality problems, 19 hours; transfer system problems and maintenance, 15 hours; housekeeping, 13 hours; dicing system problems and maintenance, 5 hours; Banbury maintenance, 4 hours; and running transfer line cleanout to remove streamers, 4 hours.

Line V operated 14.5 days during March at an average rate of 48M pounds per day. Major items affecting production efficiency were: product changes and startup, 39 hours; single-screw pelletizer and hot oil system problems and maintenance, 35 hours; and quality problems, 7 hours. Line V was down twenty-four hours for scheduled troubleshooting and maintenance.

Line III operated thirty-one days during March at an average rate of 136M pounds per day. Major items affecting production were: product changes, 72 hours; dicing system problems and maintenance, 12 hours; feeder problems and maintenance, 9 hours; and running transfer line cleanout to remove streamers, 7 hours.

Quality performance for flexible compounds was 1.3% off-grade of which 94% was due to mill scrap. "BC" production was .9%.

The raw material requirement for flexible compounds was 1.03742 pounds of raw material per pound of compound versus a 1.01122 standard (YTD is 1.01023).

The variable cost variance for compound was $63.5M unfavorable with $2.1M unfavorable due to price and $61.4M unfavorable due to efficiency. The efficiency variance due to product mix was $9.3M favorable. The efficiency variance for compound color concentrates was $17.3M unfavorable due to correction of an accounting error bringing the cumulative variance for colors to $22.7M favorable. The unusually unfavorable overall efficiency variance was largely due to correction this month of an error which last month overstated production by one railcar.

Total compound inventory rose .1MM pounds in March to 7.9MM pounds.

Dry Blend	Month	Average Operating-Day Rate	Fiscal Y.T.D.
Production, M Pounds	4572	147	27133
Operating Days	31	-	184

COMPOUND - Continued

Dry Blend - continued

Dry blend operated thirty-one days during March at an average rate of 147M pounds per day. Production included 80172C, 80273G, 90172D, RP-421, 186-139, 223-36, 223-57, 269-12, RP-440, 269-67, 180-31, 269-13, BCF1, 269-123, 269-124, RP-100, and 245-80.

Dry Blend production was hindered by: product changes, 71 hours; delays associated with quality and lab problems and normal Q.C., 56 hours; transfer system problems and maintenance, 14 hours; screener problems and maintenance, 7 hours; and filler system problems, 5 hours.

Quality performance for the month of March was 97.6% customer grade.

The raw material requirement for dry blend was 1.00834 pounds of raw material per pound of dry blend versus a standard of 1.00489 (YTD is 1.00988).

The variable cost variance for dry blend was $25.7M favorable with $15.7M favorable due to price and $10.0M favorable due to efficiency. The efficiency variance due to product mix was $4.9M favorable. There were no major dry blend raw material efficiency variances.

Plasticizer	Month	Average Operating-Day Rate	Fiscal Y.T.D.
Production, M Pounds	1994	64	11366
Operating Days	31	-	184

Plasticizer operated thirty-one days during March at an average rate of 64M pounds per day. Production included 610P and 108P.

VRP production totaled 165M pounds (8.3%).

The raw material requirement for plasticizer was 1.06392 pounds of raw materials per pound of plasticizer versus a 1.09814 standard (Y.T.D. is 1.10623).

The variable cost variance for plasticizer was $35.1M favorable with $5.7M favorable due to price and $29.5M favorable due to efficiency.

The efficiency variance due to product mix was $2.2M unfavorable.

Quality Improvement

Work on charting process variables continues on all lines. In March, compounders began charting hardness and gravity values on all blenders produced on Lines I and III. These charts will soon be available to customers who have requested them.

COMPOUND - Continued

Energy

	Usage (BTU/Lb.)	
	Actual	Standard
Compound	1830.1	1783.0
Dry Blend	768.0	730.0
Plasticizer	1675.8	1833.5

MECHANICAL DEPARTMENT - T. F. Lyon

MAINTENANCE - G. A. Morgan, D. A. Miller

Safety

There was one injury to a Maintenance Department employee during the month. A General Mechanic required medical treatment to remove a foreign particle from his left eye. The mechanic was opening the bottom manway on 741 reactor when the accident occurred. An investigation is underway and will be complete in mid-April.

Vinyl

Two reactor seals were replaced during the month. The 400 seal was replaced due to an external leak and the 743 seal was replaced due to an internal leak. The 743 seal had been in service for eighteen months.

Eight reactor valves were changed out and rebuilt during the month.

Both "A" and "B" compressors in the old module recovery system were replaced with rebuilt spares. An investigation into recovery compressor performance and corrosion and erosion problems was initiated.

The 741 agitator shaft failed during the month. The shaft failed due to bending and was initiated by a notch defect next to the seal mounting flange. A spare shaft was available in the plant.

The following repairs were made to Vinyl unit rotating equipment:

- A new impeller was installed in the new module hot water charge pump.

- The "B" vacuum pump inboard seal was replaced.

- The seal was replaced in the old module condensate return pump.

- The normal kill pump was overhauled.

- The 745 agitator fluid coupling was replaced.

- The input pinion seals on the 743 and 745 agitator gearboxes were replaced.

- The outboard seals were replaced in both 705 and 706 emission recovery compressors.

Dryer Area

Two rotary dryer centrifuges were overhauled during March. Both #6 and #8 centrifuges were changed out and the spare rebuilt. The gearboxes and trunnion bushings were overhauled in both cases.

MECHANICAL DEPARTMENT - Continued

Dryer Area - Continued

The pond resin centrifuge conveyor was built up and hardfaced with tungsten carbide in preparation for the spring pond resin drying.

The rotary airlocks for the debox screener, #4 and #6 dryer were overhauled.

Instrument and Electrical

The following major I&E work was completed in the Vinyl area:

- A pressure recorder was installed to monitor plant process water pressure.

- The new reactor unit Gould Modicon PLC was changed out due to a power supply problem.

- New propane leak alarms were installed in the Vinyl control room.

Compound, Dry Blend, Plasticizer

The following major work was completed in the Compound area:

- Line I "B" blender gearbox was replaced with a rebuilt spare.

- The Line I product blower was replaced with a rebuilt spare.

- Replaced the #2 dicer spindle.

- The Line V Welex blades were replaced.

The following major work was completed in the Plasticizer area:

- Three sections of corroded cooling water piping were replaced.

- Completed demolition of obsolete piping in P-1.

- The Schenk filter was dismantled for cleaning.

- Extensive repairs to R-1 cooling coils and baffles were completed.

Instrument and Electrical

- The Line V single screw hot oil heater was overhauled. The old control system was replaced with an automatic microprocessor based temperature controller.

- The dry blend Titanium Dioxide feeder controls were replaced.

- Additional control room indicators were installed to monitor valve positions on Line V.

MECHANICAL DEPARTMENT - Continued

Instrument and Electrical - continued

- Surge protectors were installed on the 110V relays in the Line V Orbitran to eliminate computer malfunctions.

- The dry blend B&C blender motors were replaced.

Utilities

A new outfall flow recorder was installed at pond #6.

The boiler steam flow instrumentation was calibrated.

The main breaker at the lagoons was replaced.

The boiler feedwater tank was opened and inspected.

Capital Project Status - R. E. Polk

AFE Number	Project Title	Status
A5L2	Plasticizer Modernization Phase I	Installation of a cleanout nozzle on the overflow line will be installed by 4/17. Tie-in of the south PA tank will be completed by 4/24, after which the project will be closed to field charges.
C566	Masterbatch Bulk Resin Handling	Pre-shutdown mechanical work is complete. Electrical work is in progress and planned for completion the week of 4/6. A shutdown is being coordinated with operations for the week of 4/20.
D5S5	VCM/Propane Gas Detection	All punchlist items are complete. Operational report has been issued. A field closure notice will be issued by 4/15.
D606	Propane Tank Farm Elec. Revisions	Electrical construction is in progress and planned for completion by 5/1.
D646	City Water Backflow Prevention	Performance of system is being evaluated by process engineering to determine proper operating combination of well pumps and the booster pump. All punchlist items are in progress and planned for completion the week of 4/6.

Capital Project Status - Continued

AFE Number	Project Title	Status
D756	Reactor Jacket Expansion Joints	Joints have been placed on order. Delivery is scheduled for 4/15 on the small joints and 5/15 for the large. BOB's for installation have been issued. A pre-bid meeting will be held on 4/7. Bids are due the week of 4/13.
F596	Reactor Quality Improvements - Phase I	Have experienced scan time problems with with the VCM meters. Engineering is working on solution. Design for the new module is 50% complete and in progress. Installation of the old module is planned for completion by 6/1. The new module work will be coordinated with the annual turnaround planned for October.
F786	Resin Quality Improvement - Perm. Rigid	Phases I and II engineering are to be complete by 4/15. Bids have been received for Phases 1 and 2 electrical scope and are being evaluated. A contract has been awarded for the mechanical portion to Sunland, Inc.

Contracts - C. A. Clark

A total of five construction contracts and forty-five register tickets were issued during the month of March.

PROCESS ENGINEERING - V. E. Messick

Resin Quality Improvement Project

A. Flexible Resin Technology - A report was issued on the third experimental design that quantified the effect of colloid charge volume and use of BPA versus AMS killed recovered VCM on particle size. Alcotex testing showed that the final cool down temperature did affect particle size and established the need for more cooling capacity in summer months.

Investigation into high hard particle results showed high dryer inlet temperature spikes increased hard particle counts. Operating procedures have been revised to reduce these high temperature spikes. Samples were sent to R&D for analysis. R&D and plant personnel tested several options to reduce foaming and hard particles with the goal of increasing batch size. Only post pressure drop Alcotex injection was believed to be successful. Work is currently underway to revise the reactor interlock logic to allow this injection. Modifications to four reactor rinse sprayheads proved successful in reducing wall scale.

B. Rigid Resin Permanent Facilities - A partial AFE to cover initial engineering to design the permanent suspending agent make-up and charge facilities for production of the new flexible resin has been approved. This scope of work was given to Litwin to design along with the permanent rigid resin facilities. Preliminary layouts of the make-up and charge building were completed by the plant. These layouts were reviewed with PED, GED, and Litwin. Visits by the agitator vendors to observe colloid make-up were scheduled and are underway. Review of equipment inquiries for the permanent systems has begun. Construction of the Polivic system for D-700 reactor and the dump system for D-745 reactor has begun.

C. RQIP Environmental Team

The organic loading estimate was revised during the month to reflect changes in projections of new technology formulations. A sampling plan was proposed by Tom Heller, PED, to gather sufficient data for a mathematical model of the plant's wastewater system. The model will be used to predict the wastewater system performance with increased organic loading from the new technology.

PCB Removal Plan

A letter outlining the scope and specific steps to remove all PCB equipment was issued and reviewed.

5305 Antistat Testing

Two new antistat agents (Atmer 129 and Span 20) were tested on 5305 to determine if fusion characteristics improved over calcium stearate coated resin. Both controlled static at acceptable application rates and appeared not to be detrimental to fusion characteristics.

PROCESS ENGINEERING - Continued

Vinyl Area Distributed Control System

Work has begun to determine the scope, justification and cost of installing a distributed control system in the vinyl area.

Dry Calcium Stearate Addition System

An additional test was conducted on the fluid bed dryer during the month. The review issue of the class "A" design was issued and a review meeting held. The AFE request with economics was completed and submitted.

Line V Operation Consistency

Production on Line V was monitored during the month to determine the causes of inconsistencies experienced at customer accounts. Several revisions were recommended and implemented based on operating problems found. A report is being prepared.

VCM/Recovery System Seal Water Filters

As part of the TCLP study, the existing systems are being investigated to determine ways to reduce the VCM level so the filters will not be classified as hazardous. Recommendations have been made to revise systems to allow for more thorough stripping.

Reactor Slurry Containment

As part of the TCLP study, all systems containing reactor slurry were surveyed to determine potential for spills. Recommendations were made to provide additional curbing, process drains, and concrete area to contain spills if one should occur.

Compound Fusion Team

Team members attended the CTCC meeting held in Aberdeen on 3/19. The team's objectives and planned action steps were presented at the meeting. The team formulated an overall objective list; distributed this list to all parties present at the CTCC meeting including Premiere and Blane Polymers for input. Team members are soliciting input from all parties on variables that could significantly affect fusion. This input will be used to formulate experimental designs in April. Preliminary results of testing with the Very Simple Test (VST - pressed plaque test) indicates that this test can distinguish between material produced at different stock temperatures for 35852. Validity of the test will be checked with different hardness compounds produced at a series of stock temperatures.

PERSONNEL - R. A. Miller

EMPLOYMENT

Arthur J. Stewart, New Hire
Jeffrey Popp, Co-op Student returning to work

PROMOTIONS/TRANSFERS

Keith L. Fogg, Safety Director, LAB Plant, to Safety Director, Aberdeen Plant
Jack E. Little, Office Manager, Premiere Polymers, to Director of Administrative Services
Chris Gilreath from Compound Utility to Vinyl "A" Operator
Larry Brown from General Helper to Vinyl "A" Operator
Donald R. Whatley from General Helper to Compound Utility

RETIREMENTS

None

TERMINATIONS

Charles E. Morris, deceased
W. F. Higginbotham, employee resigned
Thomas A. Madigan, Co-op Student returned to school

TO/FROM LEAVE OF ABSENCE

None

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Aberdeen, Mississippi

MARCH, 1987
MONTHLY PERSONNEL REPORT

		Minority Employees	#	%
Salaried Employees	74*	Salaried	8	11%
Hourly Employees	168	Hourly	65	39%
Total Employees	242	Total	73	30%

Employees (Hourly)

New Employees	0	Hourly Min. Hired	0
Terminations	0	% Min. Hired	0
		Hourly Min. Term.	0
		% Min. Term.	0

DEPARTMENTS	PAR	# EMPLOYEES	MIN. EMP.	% MIN.	NEW HIRES	YTD	TERM.	YTD	TURNOVER	YTD
Warehouse	14	16	7	44	0	0	0	0	0	0
Gen. Plant	16	13	6	46	0	7	0	0	0	0
Maintenance	39	38	8	21	0	0	0	0	0	0
Laboratory	22	24	5	21	0	0	0	0	0	0
Compound	33	40	28	70	0	0	0	0	0	0
Vinyl	32	32	9	28	0	0	0	0	0	0
Plasticizer	4	5	2	40	0	0	0	0	0	0

Number of Applicants:

Month 2 Year to Date 7

APPLICANT BREAKDOWN:

Minority 1 % Minority 50

Female 1 % Female 50

Hires (Hourly) :

Month 0 Year to Date 7

Terminations (Hourly) :

Month 1 Year to Date 2

Overall Turnover .6%

Projected Annual Turnover 2.4%

* Includes 1 temporary employee and one Co-op Engineer.

VAB.0001191433

OVERTIME AND ABSENTEEISM

Department	Straight Time Hours Worked	Overtime Hours Worked		Overtime as a % Of Straight Time	Absence Hours Lost	Absence as a % of Straight Time			
		Controllable(1)	Non-Controllable(2)			Sickness	Other	Total	F.Y.T.D.
WAREHOUSE	2553.50	189.50	_____	7.42	2	.00	.08	.08	1.27
MAINTENANCE	4843.25	458.75	_____	9.47	20	.00	.41	.41	2.78
LAB	3761.75	281.50	_____	7.48	51	.96	.40	1.36	2.52
COMPOUND	6548.00	602.25	_____	9.20	124	.70	1.19	1.89	3.24
VINYL	5995.00	1083.75	_____	18.08	30	.20	.30	.50	1.79
PLASTICIZER	865.00	36.50	_____	4.22	3	.00	.35	.35	1.00
UTILITY BOILER	624.00	57.75	_____	9.25	0	.00	.00	.00	.00
GENERAL PLANT	548.50	.50	_____	.09	163	29.17	.55	29.72	27.35
TOTAL	25739.00	2710.50	_____	10.53	393	.99	.54	1.53	2.91

(1) Controllable Overtime - all overtime excluding overtime due to working regular hours on a holiday and working the sixth day in operations.

(2) Non-Controllable Overtime - that overtime due to working regular hours on a holiday and working regular hours on the sixth day in operations.

ENERGY CONSERVATION - F. G. Jeanson

I. Plant Operations

Total energy consumption for March was 116.861 MMM BTUs. Energy consumption decreased to 2434 BTU/lb. from 2444 BTU/lb. in February. An adjusted CMA reduction of 52.3% was obtained for the month. The adjusted CMA reduction for fiscal 1987 is 53.9%.

II. Plant Energy Conservation Program

A. Maintenance

There were twelve energy related items completed in March. Nine of these items were steam leak repairs. The remaining three were steam trap repairs.

III. Boiler Operation

Boilers	Combustion Efficiency %	
	March, 1987	March, 1986
No. 1	(1)	83.7 (2)
No. 2	83.4	83.7
No. 3	83.1	83.6

Note: (1) Boiler number one was not used during the month.

(2) Boiler number one was operated three days during the month.

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ENERGY CONSERVATION DATA

Month		1987 March	1986 March
Production, MM Lbs.			
Resin		34.1	38.7
Dry Blend		4.6	3.9
Compound		7.3	6.0
Plasticizer		2.0	1.3
	TOTAL	48.0	49.9
Natural Gas			
Consumption, MSCF		56681	61191
Conversion, BTU/SCF		1020	1020
Energy Consumption, MMM BTU		57.815	62.415
Energy Consumption, BTU/lb.		1204	1250
Electricity			
Consumption, MM KWH		5.9046	5.5884
Conversion, BTU/KWH		10000	10000
Energy Consumption, MMM BTU		59.046	55.884
Energy Consumption, BTU/lb.		1230	1120
Propane			
Consumption, M Gal.		0	0
Conversion, BTU/Gal.		92000	92000
Energy Consumption, MMM BTU		0	0
Energy Consumption, BTU/lb.		0	0
Total			
Energy Consumption, BTU/lb.		2434	2370
Energy Consumption, MMM BTU			
Actual Unadjusted		116.861	118.299
Actual Adjusted		96.774	89.216
1972 Base Period		202.933	214.347
CMA Reduction (%)			
Adjusted		52.3	58.4
Unadjusted		42.4	44.8
Fiscal 1987 Year-to-Date Performance	53.9% Adjusted 44.2% Unadjusted		

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ENVIRONMENTAL - F. G. Jeanson

Water

One minor wastewater violation occurred on March 19 when the pH of outfall 003 was measured and found to be 9.7. The current limit is 9.0

All other wastewater discharge parameters were within NPDES limits during March.

The quarterly bioassay sampling was completed.

EPA laboratory performance samples were received and sent to EnviroLab. Results will be returned to EPA in April.

Waste Management

One truckload of waste oil was shipped to Stauffer Chemical Company.

One truckload of drummed waste (filter cake and paper, stabilizer spill, PA spill) was shipped to Chemical Waste Management (CWM).

Eight dump truckloads of vacuum dust were shipped to CWM. All vacuum dust that had collected at Prairie over the past year has now been removed.

One dump truckload of Line I construction sand and concrete was shipped to CWM.

One truckload of reactor culls was shipped to Sun Polymers.

Reporting

The quarterly NESHAP report was completed and issued.

An amended underground storage tank notification to the State was issued.

A pollution cost survey for Tom Roberts, Accounting-Houston, was completed.

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TABLE I

WATER COMPLIANCE WITH

NPDES PERMIT PARAMETERS

		Flow GPM	BOD PPM	BOD LB./DY.	COD PPM	COD LB./DY.	Sus. Solids PPM	Sus. Solids LB./DY.	Diss. O^2	NH_3 LB./DY.	pH
Oct. -	Ave.	1010	6	77	26	311	14	165	7.4	2.7	7.6
	Max.	1207	10	120	33	404	23	281	8.0	7.3	8.0
Nov. -	Ave.	1031	15	183	33	406	23	281	8.2	0.1	7.6
	Max.	1075	17	213	42	527	37	464	9.1	0.1	7.8
Dec. -	Ave.	987	23	268	71	846	13	179	7.6	2.0	7.3
	Max.	1350	46	373	110	1284	24	302	8.6	4.7	7.8
Jan. -	Ave.	1062	15	194	53	662	18	231	9.6	2.1	7.7
	Max.	1300	20	310	57	775	28	434	10.3	4.6	7.8
Feb. -	Ave.	858	14	142	42	431	10	99	10.0	4.9	7.7
	Max.	900	26	266	75	766	13	140	10.6	9.3	8.0
Mar. -	Ave.	903	11	119	38	409	19	206	8.8	4.0	7.8
	Max.	970	21	217	50	541	35	362	10.5	7.6	8.3
Apr. -	Ave.										
	Max.										
May -	Ave.										
	Max.										
June -	Ave.										
	Max.										
July -	Ave.										
	Max.										
Aug. -	Ave.										
	Max.										
Sept. -	Ave.										
	Max.										
NPDES Permit Limits - December 1 through April 30											
Ave.		-	32	431	-	1462	-	674	> 6.0	13	6.0 - 9.0
Max.		-	43	800	-	2713	-	1396		28	
NPDES Permit Limits - May 1 through November 30											
Ave.		-	26	357	-	1212	-	674	> 6.0	13	6.0 - 9.0
Max.		-	40	744	-	2523	-	1396		28	

LABORATORY - H. G. Coleman/J. R. Williams

Safety

A. Safety

There were no recordable first aid or medical cases for the month. One employee was placed under observation when he suffered a slight muscle strain in his back while lifting a fifty-pound bag of resin; he has fully recovered.

B. Customer Relations

Customer Contacts

Hoechst Celanese - H. G. Coleman accompanied Research and Marketing personnel to this customer on March 4 to discuss quality control testing and correlation of results for 5305. We agreed to help him (Russ Rhoads) set up his new HS-100 headspace analyzer and subsequently sent him our test method. Once his machine has lined out, we will arrange a sample swap for a correlation study. Multiple samples from a 5305 railcar were analyzed for I.V. and RVCM in response to one of their queries on consistency. Little variation was seen; a report was issued on 3/31.

AT&T - A. Kelson of AT&T, Omaha, visited the plant on 3/18 to discuss the elimination of the QMS inspection system and accepting Vista in a Vendor Partnership arrangement. A report was issued on 3/23 outlining our proposed Q.C. testing of their jacket compound.

Donnelly - Representatives from this automotive glass manufacturer visited the plant on 3/26. The main areas of concern were in SPC (they want us to send them data) and melt flow, a test they feel is important in characterizing compound properties. A plan will be written addressing these issues.

Polytex - B. J. Harrison visited this customer on 3/10 to investigate complaint of color and processing of 223-204 White 144. Subsequent testing at Aberdeen and Ponca City could not verify a problem.

Viceroy Homes - B. J. Harrison visited Viceroy on 3/11 to ascertain their preferred shade of beige (BGE 349 not acceptable). Color match was achieved by Americhem and a pilot sample was prepared in Ponca City, 269-168 BGE 320.

Eaton - G. Siler visited the plant on 3/10 and conducted a Vendor Q.A. Survey. This was last performed by Eaton in May of 1985. There were no major issues brought to our attention.

Requests for Corrective Action

There were no RCA's received in March.

LABORATORY - Continued

Customer Problem Reports

Date	Customer	Product	Reason
3/03 & 3/13	Flexible Technologies Abbeville, SC	17121 CB50	Large gels (hard particles) in finished hose.
3/03	Polytex Oakmont, PA	223-204 WHT 144	Material causing high torque and is off-color (too white).
3/04	Southwire	5425	Wasps in top of railcar.
3/20	UTC Lithonia, GA	5415	Steam evolution (moisture) from pre-blend intensive mixers.

Waivers Issued

Customer	Product	Reason	No.
Colby Plastics	80172C	Fusion & Eq. Torques	1 RC
Hayes Dockside	5265	Moisture	1 RC
Hayes Dockside	5305	Static Flow	1 RC
Nibco	5305	Static Flow	7 HT
Thermal Industries	RP100 Wht 141	Color	17 Boxes
Uniroyal	5305	Static Flow	1 HT

C. Development Lab Summary

RVCM of In-Process Samples

The following is a summary of residual VCM results on in-process samples. None of the reactor daily averages exceeded 400 ppm during the month of March, 1987.

	Reactor Slurries	Drier 5265	Drier 5305
Number of Samples	911	44	60
Average ppm, VCM	204	3.0	0.7

RVCM of Shipment Samples

The following is a summary of the residual VCM analysis of shipment samples for the month of March, 1987.

Product	5265	5305	5385	5415	5425	5465	Debox	Dry Blend
No. of Samples	22	86	39	35	21	4	28	26
Average RVCM, ppm	1.1	0.3	0.5	0.1	0.2	0.1	0.4	0.3

LABORATORY

D. Resin Process Capabilities (CPK) - Regular (Dryer) Samples

	5265	5305	5385	5415	5465
Bulk Density	0.64	0.09*	2.63	1.85	
Inherent Viscosity	0.52	0.74	0.77	0.61	
"L" Color Value	1.60	4.75	4.22	4.11	
"A" Color Value	1.44	4.17	----	----	
"B" Color Value	1.00	0.78	1.67	3.67	No Production
% on Pan (vs. 2% max.)	1.38	5.00	4.00	2.17 (0.50)	
% thru 140m	1.11	2.04	2.14	1.36	
Drytime	----	----	0.67	0.83	
Mets IR (vs. 95% of control)	----	----	----	1.35 (0.69)	
Hard Particles (% > 10)	----	----	13.9	20.1	

* 5305 bulk density CPK is unusually low due to elimination of antistat from dryer outlet (to satisfy Hoechst Celanese).

E. Compound Quality Summary - M Lbs.

	Adjustments (%)		Rejections (%)	
Hardness	15.0	(0.21)	10.5	(0.14)
Color/Clarity	0.0	(-)	0.9	(0.01)
Hard Particles	0.0	(-)	55.3	(0.76)
Heat Stability	7.0	(0.10)	3.6	(0.05)
Dispersion	0.0	(-)	24.9	(0.34)
Dicing	0.0	(-)	18.1	(0.25)
Streamers	0.0	(-)	21.0	(0.29)
Total	22.0	(0.30)	134.3	(1.84)

LABORATORY

F. Dry Blend Quality Summary - M Lbs.

	Rejections	(%)
Color	90.8	(1.99)
Color/Fusion Torque	9.4	(0.21)
Total	100.2	(2.20)

G. Miscellaneous

1. All laboratory personnel attended the "Problem Solving and Involvement Teams" training program given by our on-site QDC, Rendell Newton.

2. TCLP Testing - The first samples were shipped to both the LCCP and to an outside lab (ETC). Also, equipment was placed on order that would allow in-plant TCLP testing to be done.

3. Work was begun on converting an existing steam-heated roll mill over to an oil-heated system. A miscellaneous project was approved on 4/1 to purchase and install an oil heater. This will allow dry blend color Q.C. to be performed in a non-plasticized formulation and at temperatures more closely approximating the end user.

4. Discovered a wetness/clumping problem with the new PMS blue colorant 30389T. Material was used successfully after screening by production, but with a 50% loss of raw material and considerable overtime expenses. The supplier was contacted through Purchasing for retribution.

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ADMINISTRATIVE SERVICES - PAUL RIESENBERG

SHIPMENTS BY PRODUCT - M LBS.	MARCH 1987	FISCAL YEAR-TO DATE
Resin	29,591	164,758
Plasticizer	1,024	4,443
Dryblend	5,025	27,460
Compound	7,587	42,632
TOTAL	43,227#	239,293#

NUMBER OF SHIPMENTS BY MODE:

	R/C	OT BULK	OT VAN	TOFC	CC	CPU	CN	TOTAL
Resin-Bulk	128	44			3	87		262
Package			4		12	3		19
Export	1							1
Plast.-Bulk	6	7			1			14
Package								
Dryblend-Bulk	26	3			1	3		33
Package			5		10	1		16
Export							1	1
Compound-Bulk	20	6						26
Package			46		30	35		111
Export			1		7		2	10
	181	60	56		64	129	3	493

NUMBER OF SHIPMENTS BY MONTH-YEAR-TO-DATE

	R/C	Bulk	Van	TOFC	CC	CPU	AIR	CN	TOTAL
October	116	41	51	2	52	160			422
November	146	64	39	2	64	135			450
December	133	46	29	1	48	133			390
January	193	68	44	3	89	147			544
February	154	50	45	3	55	143	1		451
March	181	60	56	0	64	129		3	493
April									
May									
June									
July									
August									
September									

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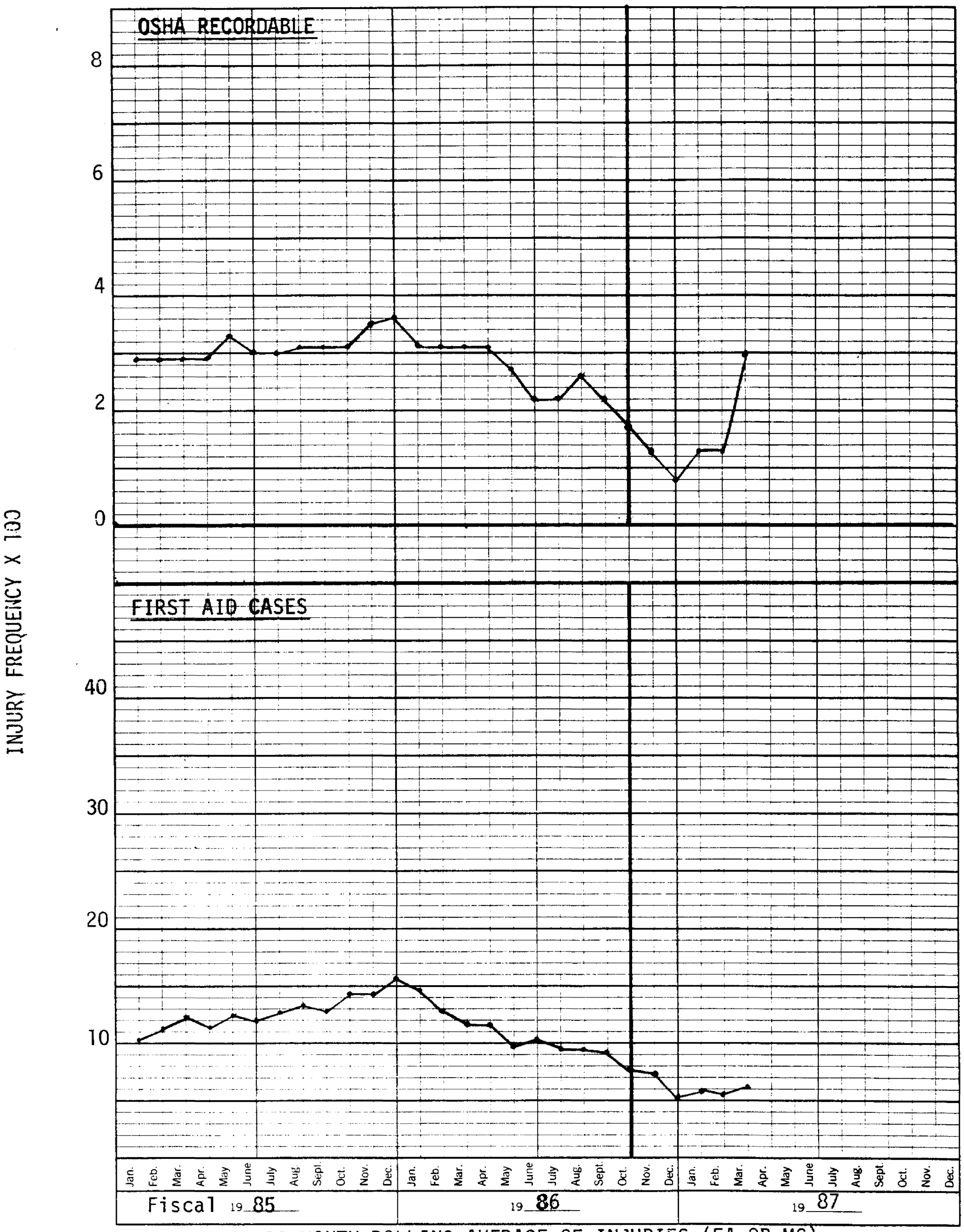
ABERDEEN CHEMICAL PLANT

INJURY PERFORMANCE



Frequency = 12 MONTH ROLLING AVERAGE OF INJURIES (FA OR MC) / TOTAL EMPLOYEES

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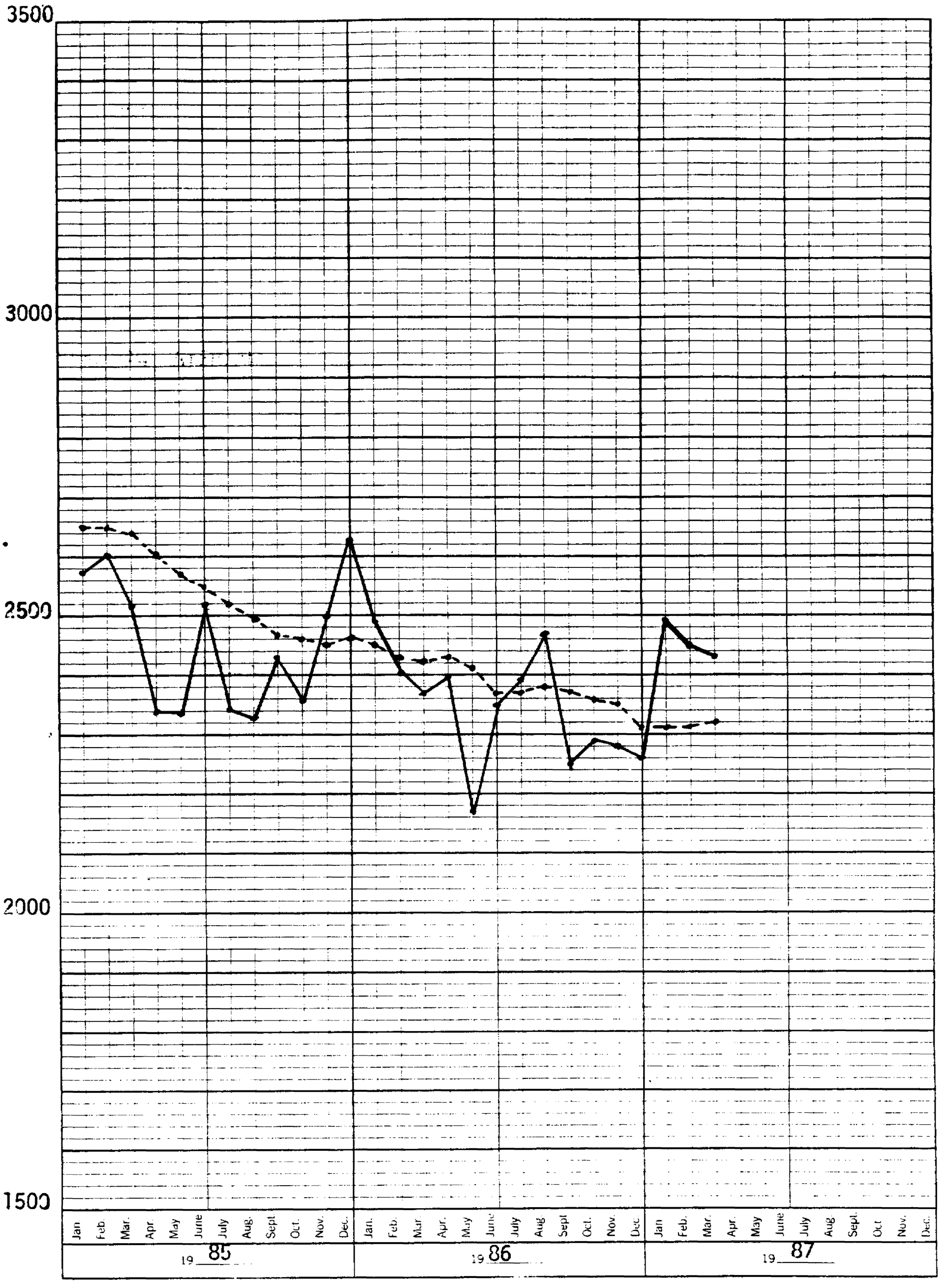
ENERGY USAGE



46 3290

K&E 3 YEARS BY MONTHS X 100 DIVISIONS
KEUFFEL & ESSER CO. MADE IN U.S.A.

_____ Monthly

- - - - - - - - - 12-Month Moving Avg.

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MONTHLY HOURLY TURNOVER

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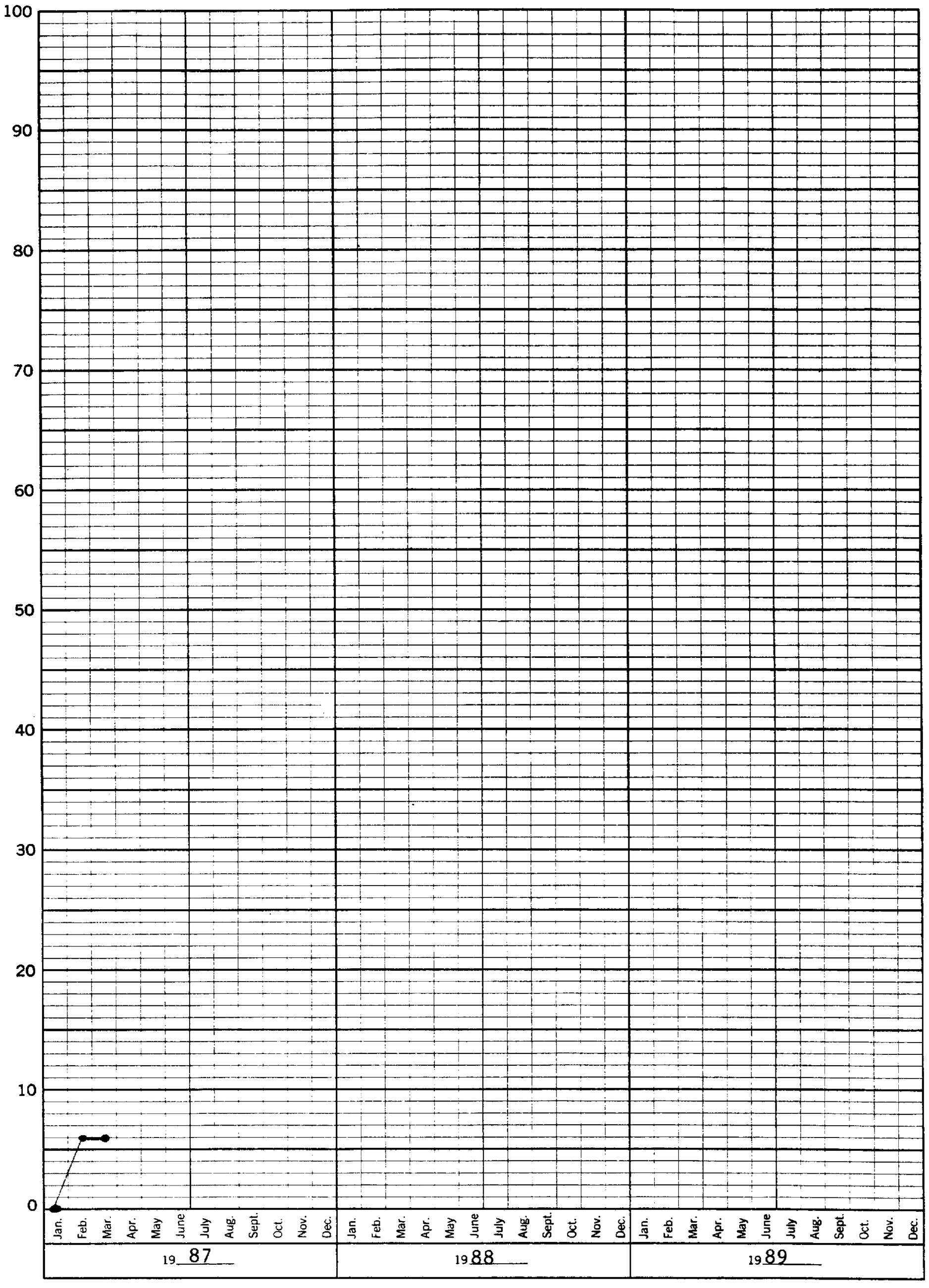

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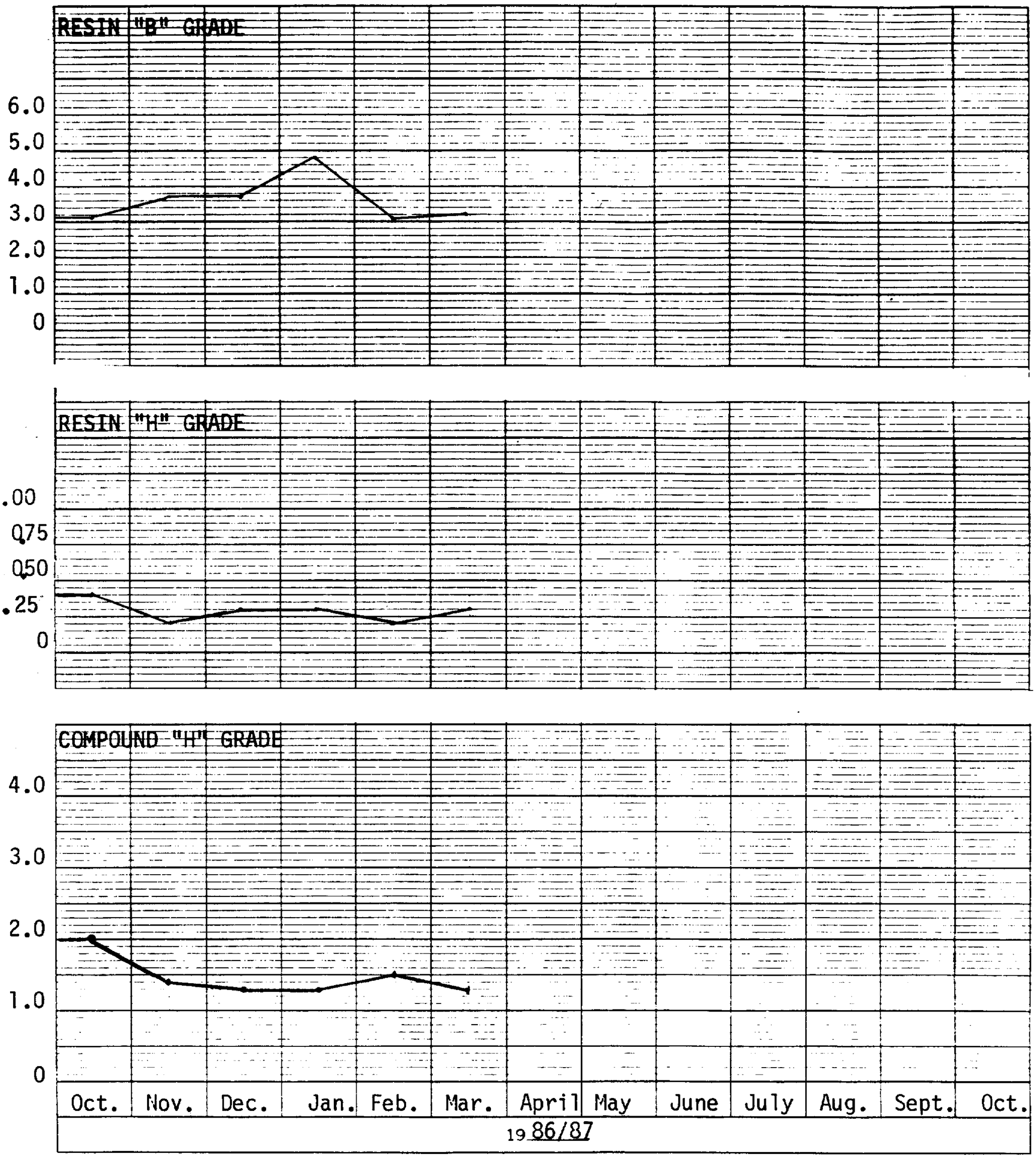
ABERDEEN PLANT QUALITY PERFORMANCE

10/01/86 - 09/30/87



ABERDEEN PLANT INVENTORIES

10/01/86 - 09/30/87

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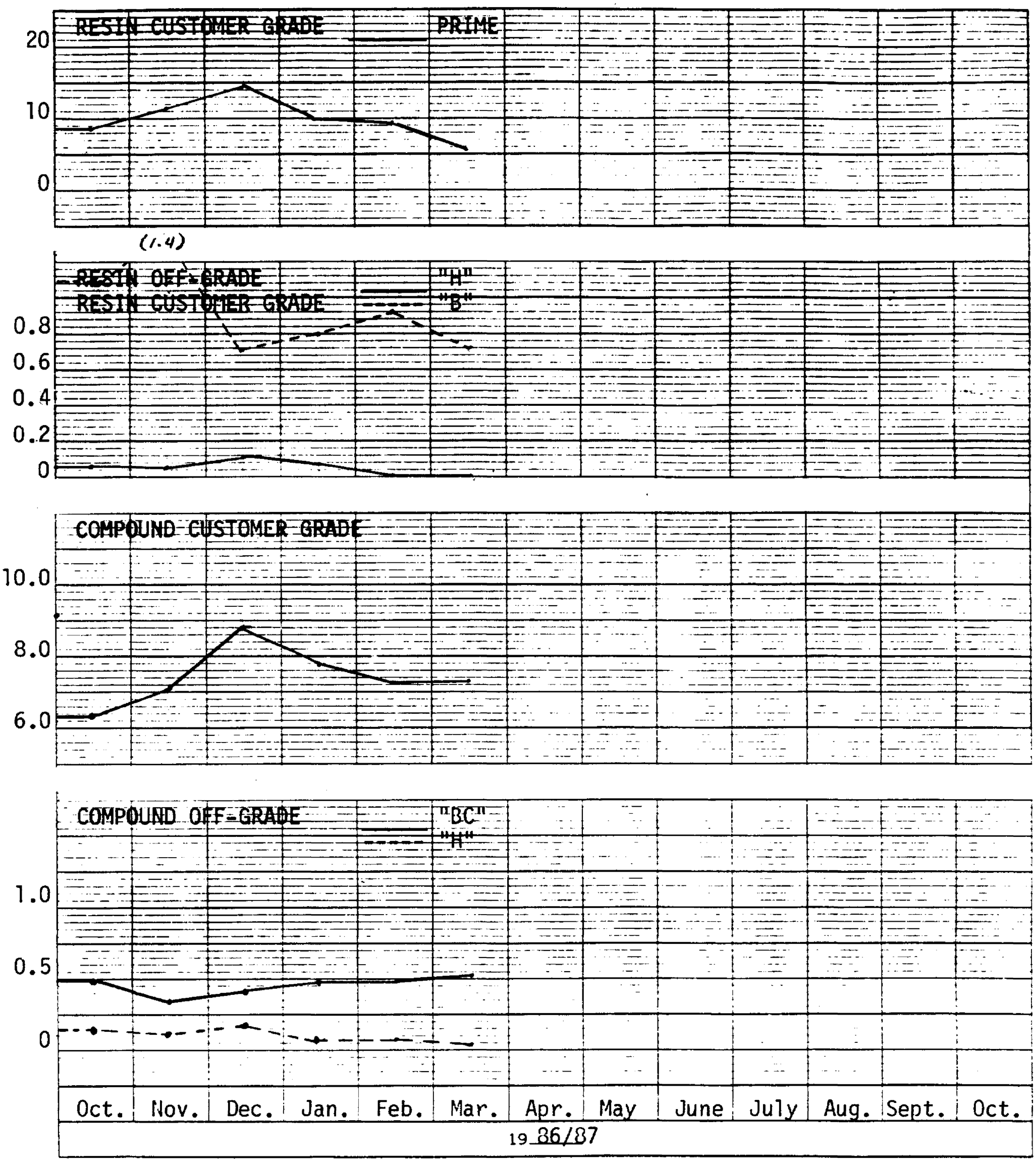
MM POUNDS PRIME



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ABERDEEN PLANT PRODUCTION

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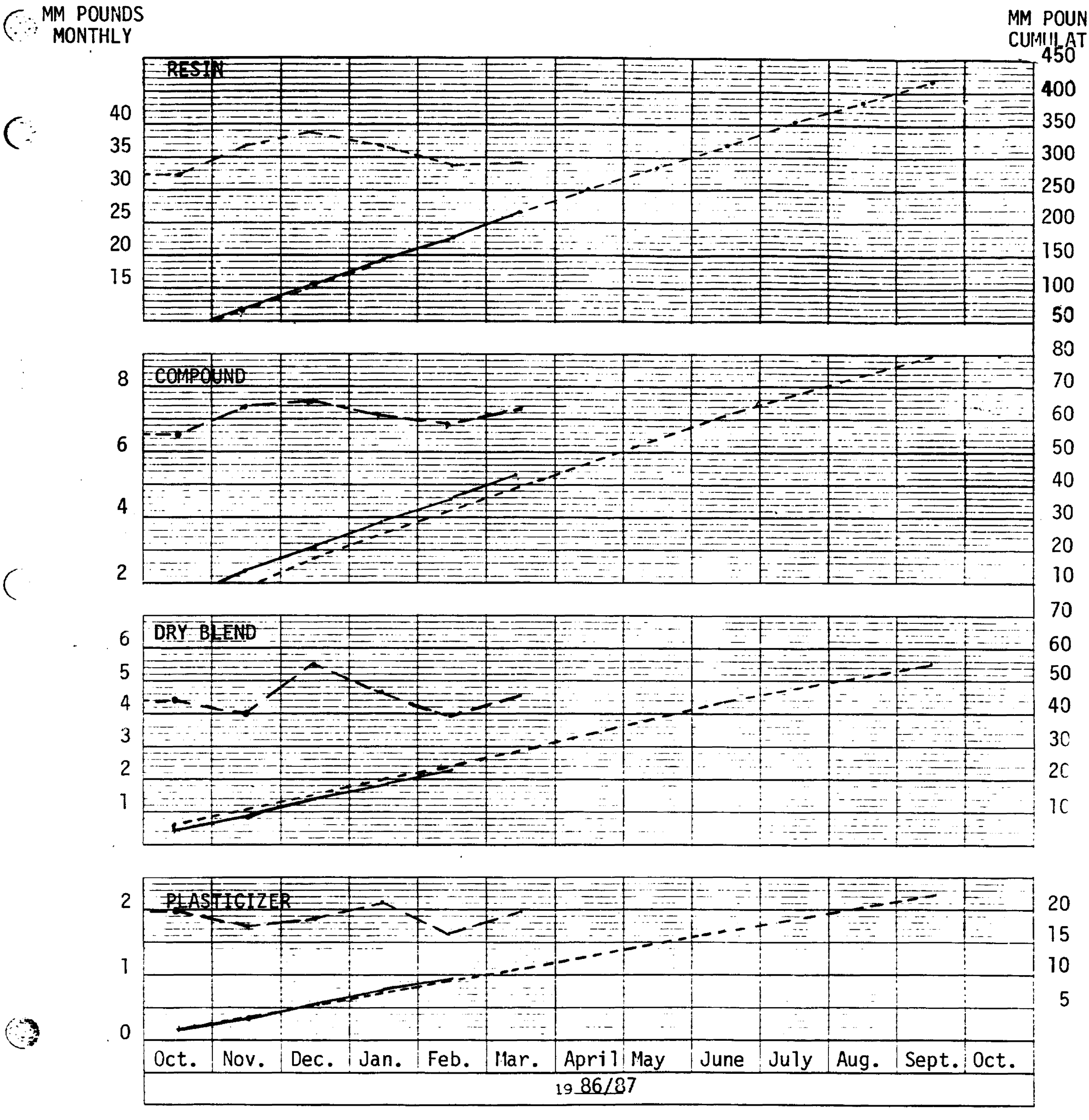
10/01/86 - 09/30/87



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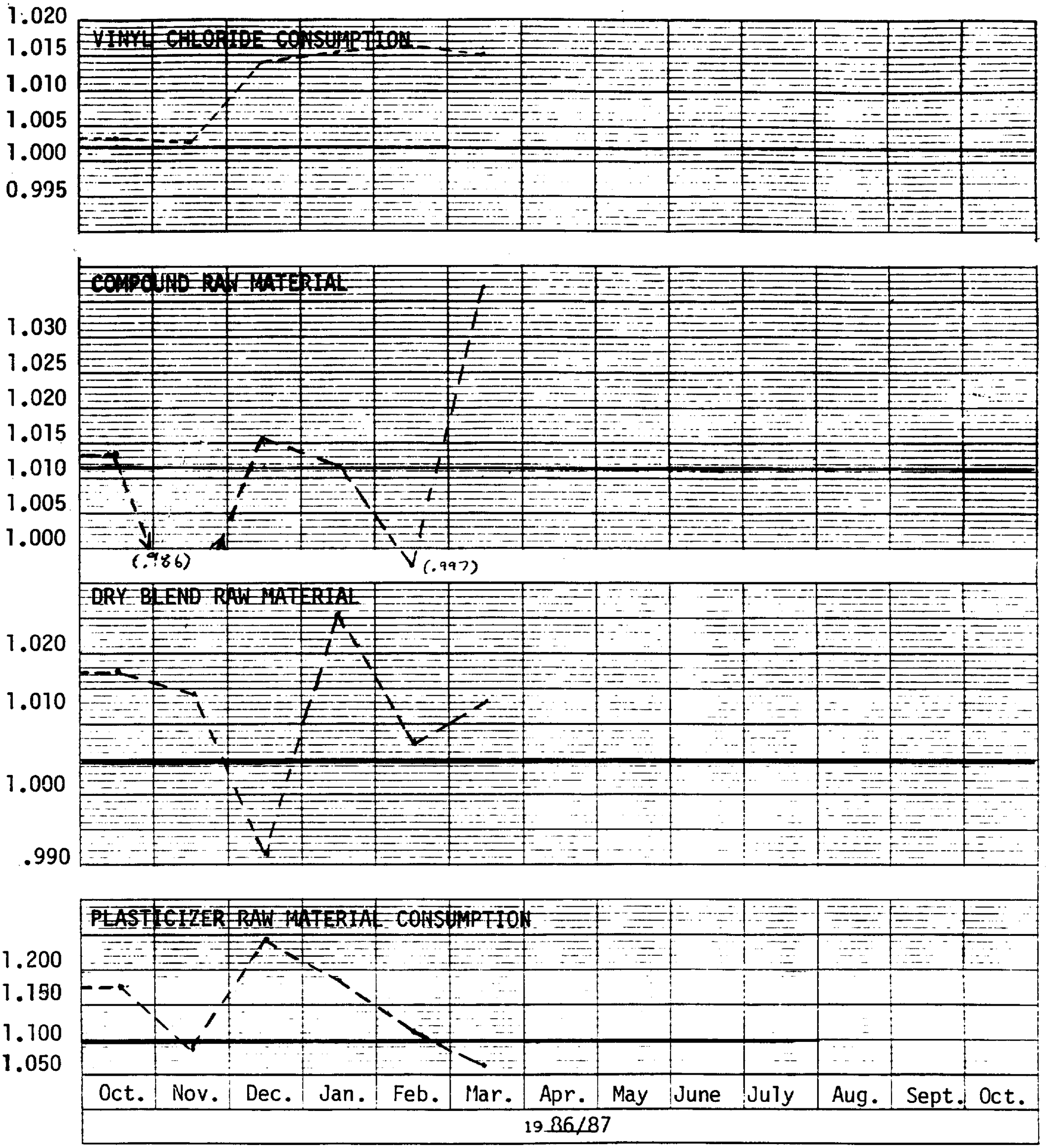
ABERDEEN PLANT EFFICIENCY

10/01/86 - 09/30/87

POUNDS OF RAW MATERIAL/POUND OF PRODUCT



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