

## Guía para Ejercicio 5 Entregable 2

Utilizando herramientas vistas en el curso (ej. análisis en frecuencia, transformaciones geométricas, segmentación por umbral, detección de bordes, líneas y regiones, morfología, etiquetado de regiones, entre otros) se buscará identificar en cada imagen:

1. **Orientación general del documento en la imagen.** El documento está en formato vertical o está apaisado.

Ejemplos:

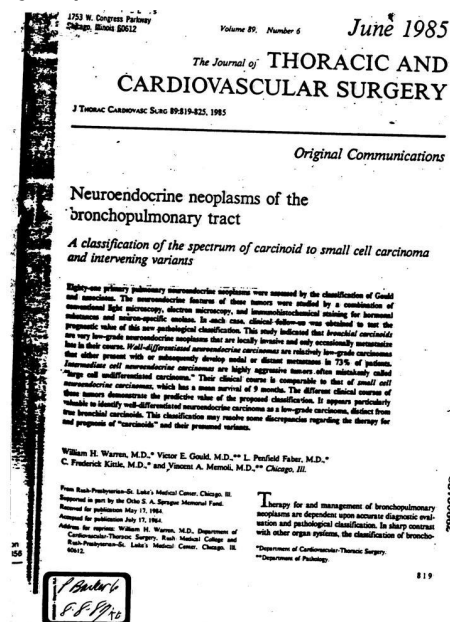


Figura 1: formato vertical

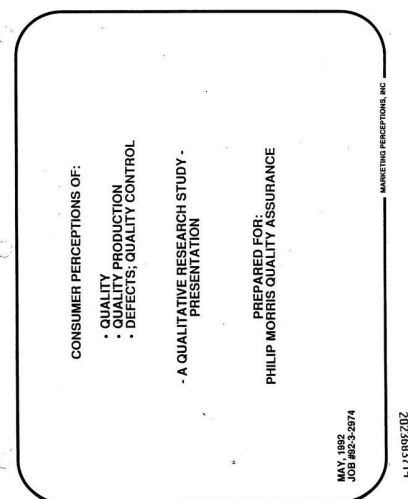


Figura 2: formato apaisado

2. **Ángulo de giro.** Ángulo a girar el documento en sentido horario para que las líneas y/o texto queden horizontales.

Ejemplo:

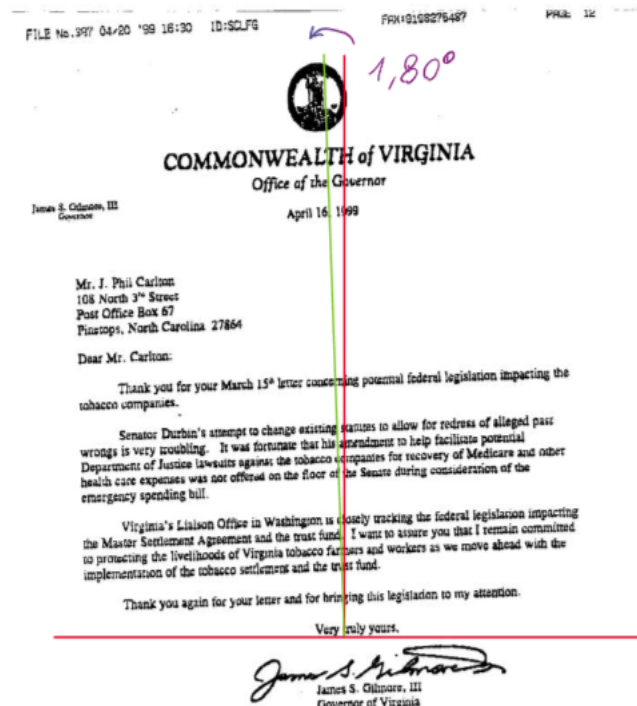


Figura 3: documento original girado (se alinea con giro 1.80° horario)

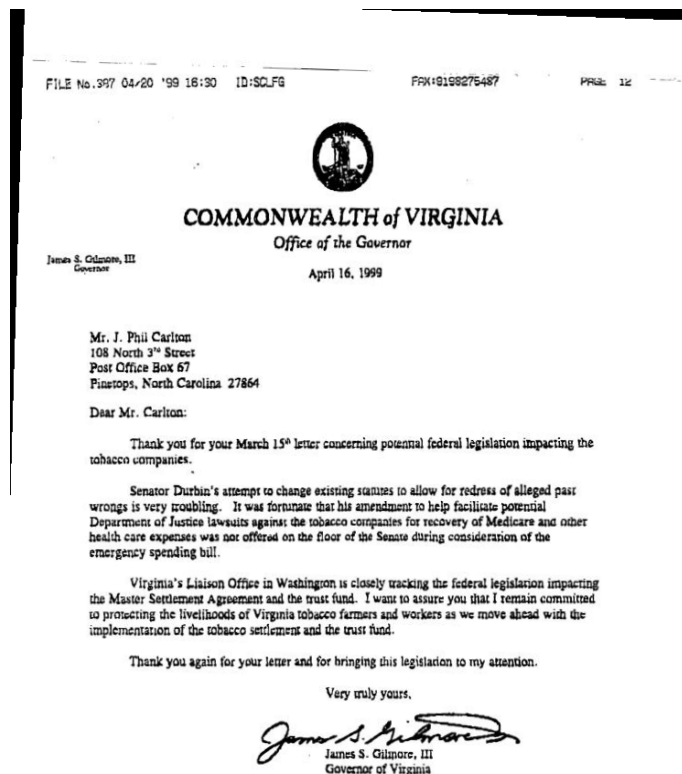


Figura 4: documento alineado

- Ejemplos documentos tipo formulario:*

10 Year Capex		10 Year Opex		10 Year Maintenance		10 Year Replacement		10 Year Upgrade		10 Year Other		10 Year Total		10 Year Total		10 Year Total		
Year	Capex	Opex	Maintenance	Replacement	Upgrade	Other	Total	Year	Capex	Opex	Maintenance	Replacement	Upgrade	Other	Total	Year	Capex	Opex
2010	100	100	100	100	100	100	500	2010	100	100	100	100	100	100	500	2010	100	100
2011	100	100	100	100	100	100	500	2011	100	100	100	100	100	100	500	2011	100	100
2012	100	100	100	100	100	100	500	2012	100	100	100	100	100	100	500	2012	100	100
2013	100	100	100	100	100	100	500	2013	100	100	100	100	100	100	500	2013	100	100
2014	100	100	100	100	100	100	500	2014	100	100	100	100	100	100	500	2014	100	100
2015	100	100	100	100	100	100	500	2015	100	100	100	100	100	100	500	2015	100	100
2016	100	100	100	100	100	100	500	2016	100	100	100	100	100	100	500	2016	100	100
2017	100	100	100	100	100	100	500	2017	100	100	100	100	100	100	500	2017	100	100
2018	100	100	100	100	100	100	500	2018	100	100	100	100	100	100	500	2018	100	100
2019	100	100	100	100	100	100	500	2019	100	100	100	100	100	100	500	2019	100	100
2020	100	100	100	100	100	100	500	2020	100	100	100	100	100	100	500	2020	100	100
2021	100	100	100	100	100	100	500	2021	100	100	100	100	100	100	500	2021	100	100
2022	100	100	100	100	100	100	500	2022	100	100	100	100	100	100	500	2022	100	100
2023	100	100	100	100	100	100	500	2023	100	100	100	100	100	100	500	2023	100	100
2024	100	100	100	100	100	100	500	2024	100	100	100	100	100	100	500	2024	100	100
2025	100	100	100	100	100	100	500	2025	100	100	100	100	100	100	500	2025	100	100
2026	100	100	100	100	100	100	500	2026	100	100	100	100	100	100	500	2026	100	100
2027	100	100	100	100	100	100	500	2027	100	100	100	100	100	100	500	2027	100	100
2028	100	100	100	100	100	100	500	2028	100	100	100	100	100	100	500	2028	100	100
2029	100	100	100	100	100	100	500	2029	100	100	100	100	100	100	500	2029	100	100
2030	100	100	100	100	100	100	500	2030	100	100	100	100	100	100	500	2030	100	100
2031																		

Single Day Operating Costs at El Dorado City				1/15/00	
Item	Unit Cost	With Pit		No Pit	
		Amount	Cost/Year	Amount	Cost/Year
Salated Personnel	0	0	No Change	0	No Change
House Personnel	0	0	No Change	0	No Change
Steam and Condensate					
Steam System	\$1.86/100gal	14000/gal	\$26,040	14000/gal	\$26,040
Steam Condensate to Heat of Process Water	\$1.86/100gal	7000/gal	\$13,020	7000/gal	\$13,020
Steam Condensate Returned to Boiler House	\$1.86/100gal	27gms	\$0	27gms	\$0
Electricity					
1st House power	\$0.04/kwhr	300kwh	\$10.20	200	\$7.00
Effluent Water Use					
Effluent Water from Waste Oxygen for 4 days.	0	0	\$0	0	\$0
Effluent Water Heat (Cyclones)	0	10gms	\$0	10gms	\$0
Effluent Water (Ventilator Sewage)	0	4gms	\$0	4gms	\$0
Process Water					
Cooling Tower Make Up	\$1.18/100gal	4gms	\$0.73	0	\$0
Demineralized Water					
Chemical Water	\$5.16/100gal	2gms	\$0.71	3gms	\$0.71
Total Waste Water Treatment	\$63,000/gal	-4.1 gms	\$14,072	6.1 gms	\$20,431
Wash Water					
Cooling Tower Blowdown					
Surge Tank Condensate		15 gms	\$0	20	\$0
Surge Condensate		10 gms	\$0	20	\$0
Venturi Blowdown		4gms	\$0	20	\$0
Compressed Air					
Cooling Tower Chemicals-50gm up	\$1.60/100gal	20gms	negligible	20gms	negligible
Maintenance					
Wash Water	2% of investment	\$1,245,000	\$24,900	\$1,245,000	\$24,900
Sludge	2% of investment	\$100,000	\$2,000	\$100,000	\$2,000
Initial Pit	2% of investment	\$1,000,000	\$1,000	\$0	\$0
Chemicals	2% of investment	\$112,000	\$2,240	\$112,000	\$2,240
Draw Condensate	2% of investment	\$625,400	\$12,508	\$0	\$0
Gases and Cooler	2% of investment	\$2,254,000	\$45,080	\$2,254,000	\$45,080
Waste Water	2% of investment	\$200,000	\$4,000	\$200,000	\$4,000
Cooling Tower And Pumps	2% of investment	\$211,300	\$4,227	\$0	\$0
Waste Water	2% of investment	0	\$0	\$400,000	\$8,000
Landfill and Hauling Costs					
Landfill Fees-6254/gal or \$335d/y + s	\$135/ton	618 tons/year	\$1,022,400	618 tons/year	\$1,022,400
Hauling Fees-2000/gal or \$100/ton/haul					
Landfill Fees Savings-4025/gal or \$335d/y	\$130/ton	4200 tons/year	\$(546,000)	4200 tons/year	\$414,000
Wasting To Pit-4025/gal or \$335d/y	\$25/ton	1642 tons/year	\$41,050	1642 tons/year	\$41,050
Wasting To Pit-2000/gal or \$100/ton/haul					
Total Operating Cost			\$(73,419)		\$(184,590)

# MATERIAL SAFETY DATA SH

J. T. Baker Chemical Co., 222 Red School Lane, Phillipsburg,

## SECTION I - IDENTIFICATION OF PRODUCT

CHEMICAL NAME

Phenolphthalein

FORMULA

$C_{20}H_{14}O_{14}$  (C<sub>6</sub>H<sub>5</sub>-4-OH)<sub>2</sub>

SYNONYM OR CROSS REFERENCE

CAS NO:

77-09-8

## SECTION II - HAZARDOUS INGREDIENTS

MATERIAL

NATURE OF HAZARD

## SECTION III - PHYSICAL DATA

BOILING POINT

MELTING POINT

507°F.

VAPOR PRESSURE

SPECIFIC GRAVITY

1.277 (32/4)

VAPOR DENSITY (AIR=1)

PERCENT VOLATILE BY VOLUME (%)

WATER SOLUBILITY

EVAPORATION RATE

(\_\_\_\_\_ %)

APPEARANCE

White crystalline solid; odorless

## SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (method used)

FLAMMABLE LIMITS

Lower

Upper

FIRE EXTINGUISHING

MEDIA CO<sub>2</sub>, dry chemical, water

SPECIAL FIRE-FIGHTING PRECAUTIONS

Air mask should be worn.

UNUSUAL FIRE AND EXPLOSION HAZARD

## SECTION V - HEALTH HAZARD

THRESHOLD LIMIT VALUE

HEALTH HAZARDS

FIRST AID PROCEDURES

CHEMICAL NAME

2025744056

Figura 5: documentos tipo tablas/formularios

4. ¿El documento tiene columnas de texto? El documento tiene agrupaciones de texto en columnas por varias filas.

Ejemplos de documentos con columnas de texto:

THE COUNCIL FOR TOBACCO RESEARCH - U.S.A., INC.

1975 Budget  
(Proposed as of December 5, 1974)

	1974 Budget	Estimated 1974 Expenditures	Proposed 1975 Budget
SCIENTIFIC ADVISORY BOARD	72,000	68,000	75,000
ADMINISTRATION			
Salary: President, Executive Vice President & Staff	115,000	113,000	115,000
Expenses	15,000	10,000	15,000
Salary: Scientific Director & Staff	293,000	279,000	300,000
Expenses	59,000	47,000	55,000
Services: Administrative & Other	101,000	101,000	111,000
Provision for Retirement	40,000	39,000	42,000
Payroll Taxes	19,000	10,000	21,000
	637,000	600,000	699,000
OFFICE EXPENSES			
Rent & Facilities	70,000	75,000	80,000
Telephone & Telegraph	15,000	15,000	18,000
Messenger, Postage & Expense	5,000	3,000	5,000
Stationery & Supplies	3,000	3,000	4,000
Insurance	24,000	19,000	24,000
	117,000	115,000	132,000
OUTSIDE SERVICES			
Printing, Reproducing, Subscriptions & Translations	45,000	44,000	50,000
Exhibits, Special Reports & Services	3,000	2,000	3,000
	48,000	46,000	53,000
LEONARD BAIN AND ASSOCIATES, INC.	59,000	53,000	66,000
SPECIAL SERVICES, CONTINGENCIES & MISCELLANEOUS (1)	100,000	65,000	100,000
	1,032,000	955,000	1,085,000
GRANTS & CONTRACTS	3,968,000	3,880,000 (2)	4,963,000
	49,000,000	44,835,000	46,048,000

(1) Includes legal fees, outside consultants and other contingencies.  
(2) Amount budgeted less adjustments and refunds.

WORK PLAN VOUCHER REQUEST  
1ST HALF - 1997

Division: 1240 Date: 5/18/97  
RJR Personnel: L.T. White Signature: [Signature]  
Jobber Name: Kate Valente  
Account #: 234410 Check Mailed To: [ ] Division Office [ ] Jobber

Promotion: \* \* \* \* D P C \* \* \* \*  
Rate Units Payment Comments

CAM NY 20DPC VP	0.20	X	=		Camel 4 Carton DPC Displays
DOR NY 25DPC VP	0.25	X	=		Doral 4 Carton DPC Displays
SAL NY 20DPC VP	0.20	X	=	40 = 8.00	Salem 4 Carton DPC Displays
WIN NY 20DPC VP	0.20	X	=		Winston 4 Carton DPC Displays
CAM .20VPR (2 CTN)	0.20	X	=		Camel 2 Carton DPC Displays
DOR .20VPR (2 CTN)	0.25	X	=		Doral 2 Carton DPC Displays
SAL .20VPR (2 CTN)	0.20	X	=		Salem 2 Carton DPC Displays
WIN .20VPR (2 CTN)	0.20	X	=		Winston 2 Carton DPC Displays
97 DPC PAYMENT	28.00	X	=	1.96	DPC Display Assembly
TOTAL					

\* \* \* \* V A P \* \* \* \*

Display Assembly Rate Units Payment Comments

Dec Camel Menthol B1G1F	28.00	X	=		Dec Camel Menthol B1G1F Displays
Jan Camel B2G2F	28.00	X	=		Jan Camel B2G2F Displays
Feb Doral B2G1F	28.00	X	=		Feb Doral B2G1F
March Doral Lighter	28.00	X	=		March Doral Lighter
April Camel B2G2F	14.00	X	=		April Camel B2G2F
April Camel Menthol B1G1F	14.00	X	=		April Camel Menthol B1G1F
97 Pre Book/Black line & Sticker	28.00	X	=	6.99	Cartons for Black line & Sticker
TOTAL					

\* \* \* \* Temporary Payment System \* \* \* \*

Promotion: Rate Units Payment Comments

WIN RAC MITCH	1.00	X	=		WIN RAC MITCH
CAM RAC MITCH	1.00	X	=		CAM RAC MITCH
SAL RAC MITCH	1.00	X	=		SAL RAC MITCH
TOTAL					

**Daily News**  
FRIDAY, APRIL 10, 1998

**Poll finds smoking ban hurt restaurant trade**

By Rick Cohen  
AP Wire Service

A new survey by the American Lung Association found that while many smokers support a ban on smoking in public places, the ban is hurting the restaurant trade. The survey, conducted by the American Lung Association, found that 60 percent of smokers support a ban on smoking in public places. However, 70 percent of smokers say they would not go to a restaurant if there was a ban on smoking. The survey also found that 60 percent of smokers say they would not go to a restaurant if there was a ban on smoking. The survey also found that 60 percent of smokers say they would not go to a restaurant if there was a ban on smoking.

7/7/86

DEFINITIONS FOR NON-MENTHOL DIAGNOSTIC 1 PANEL:

UNIT CIGARETTE

Evaluate the smoke from before lighting the cigarette.

ADDED FLAVOR AROMA (slight-extreme) Intensity of any added flavor aroma which is non-tobacco.

LIT CIGARETTE

Begin evaluating after the third puff.

EASE OF LIGHTING (easy-difficult) Measurement of difficulty in fully lighting the product.

BURNT CARDBOARD (aroma when exhaling through the nose; slight-extreme) Intensity of the smell of cardboard paper burning; noticeable on the first few puffs. Rusty, burnt, cellulosic smell; like cardboard paper burning, but with the irritation (i.e. nasal sting) removed from the smell.

THROAT HARSHNESS I (slight-extreme) Intensity of the scratchy, raw feeling in the throat during the first few puffs. Would include sting, irritation, and burning sensations.

TOBACCO (slight-extreme) Intensity of traditional tobacco taste or cigarette smoke taste perceived from the burning of flue-cured, burley, or Turkish tobacco. Traditional tobacco taste, regardless of the type of tobacco.

THROAT IMPACT (Inhalers only; slight-extreme) Intensity of the punch in the back of the throat felt immediately upon inhaling. Non-inhalers would not evaluate this dimension.

FRUITY (slight-extreme) Intensity of light, sweet flavor associated with fruit cocktail. Includes dried fruit, especially raisins and dates. Sweet perceptions would fall under this attribute.

Figura 6: documentos con columnas de texto

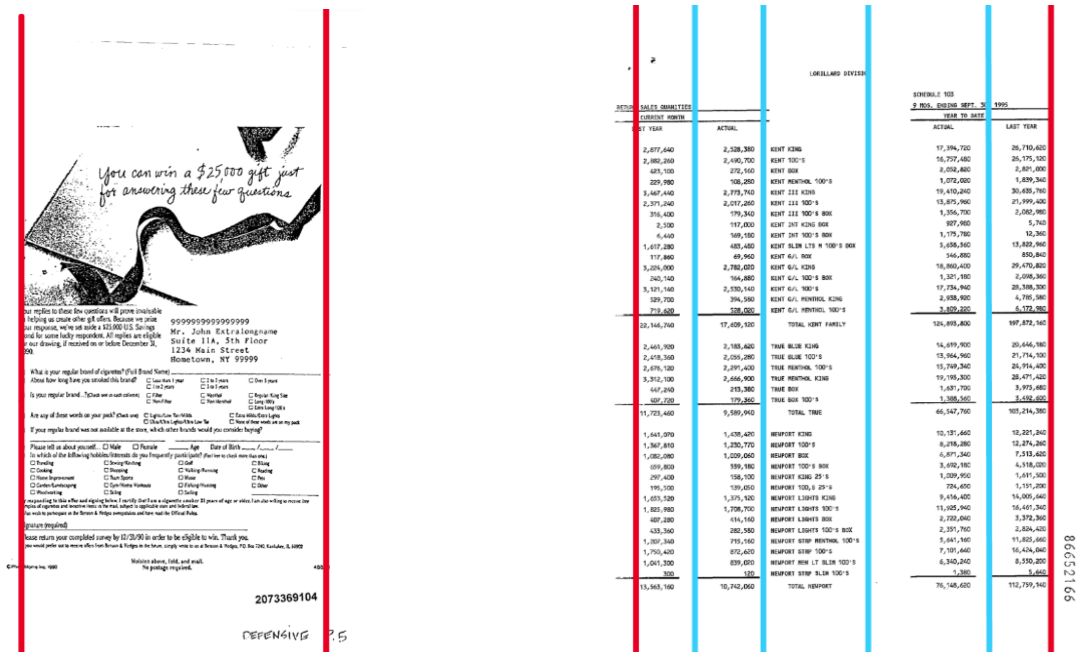


Figura 9: límites (con texto en columnas)

6. **Alto de línea.** Distancia vertical, en píxeles, entre la línea de base de una fila y la de la siguiente.

*Ejemplo:*

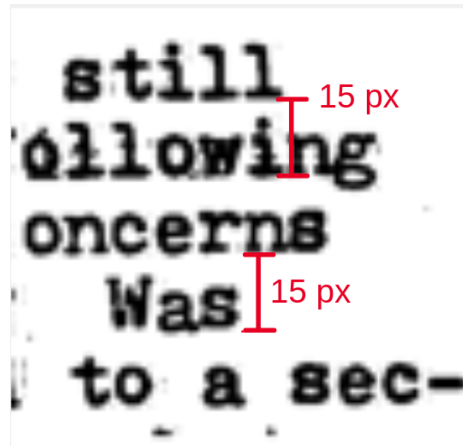


Figura 10: alto de línea

7. **Ancho de letra.** En los casos que el documento tenga un [tipo de letra "monospaced"](#) se podrá determinar el ancho de letra como la distancia horizontal en píxeles entre el comienzo de una letra y de la siguiente.

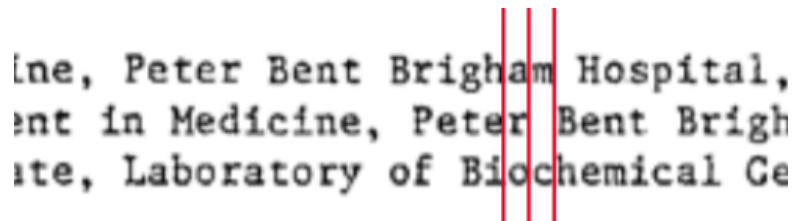


Figura 11: letra monospaced.

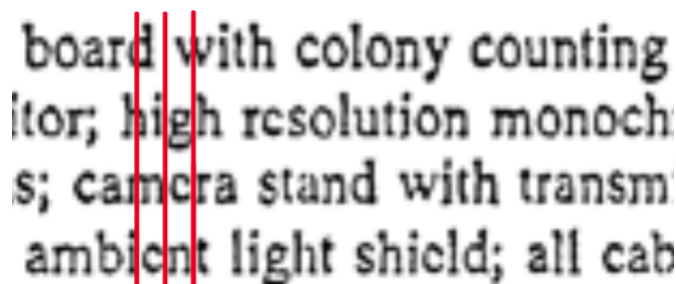


Figura 12: letra proporcional (no monospaced).



8. **Detección de figura.** ¿El documento es sólo texto y/o líneas o contiene alguna figura? Se entenderá por figura un conjunto conexo de píxeles mayor al 1% del área de la imagen y que no está compuesto por texto/líneas y que tampoco es una región quasi-uniforme (ej. un rectángulo quasi-uniforme no se considera una figura)

Ejemplos:

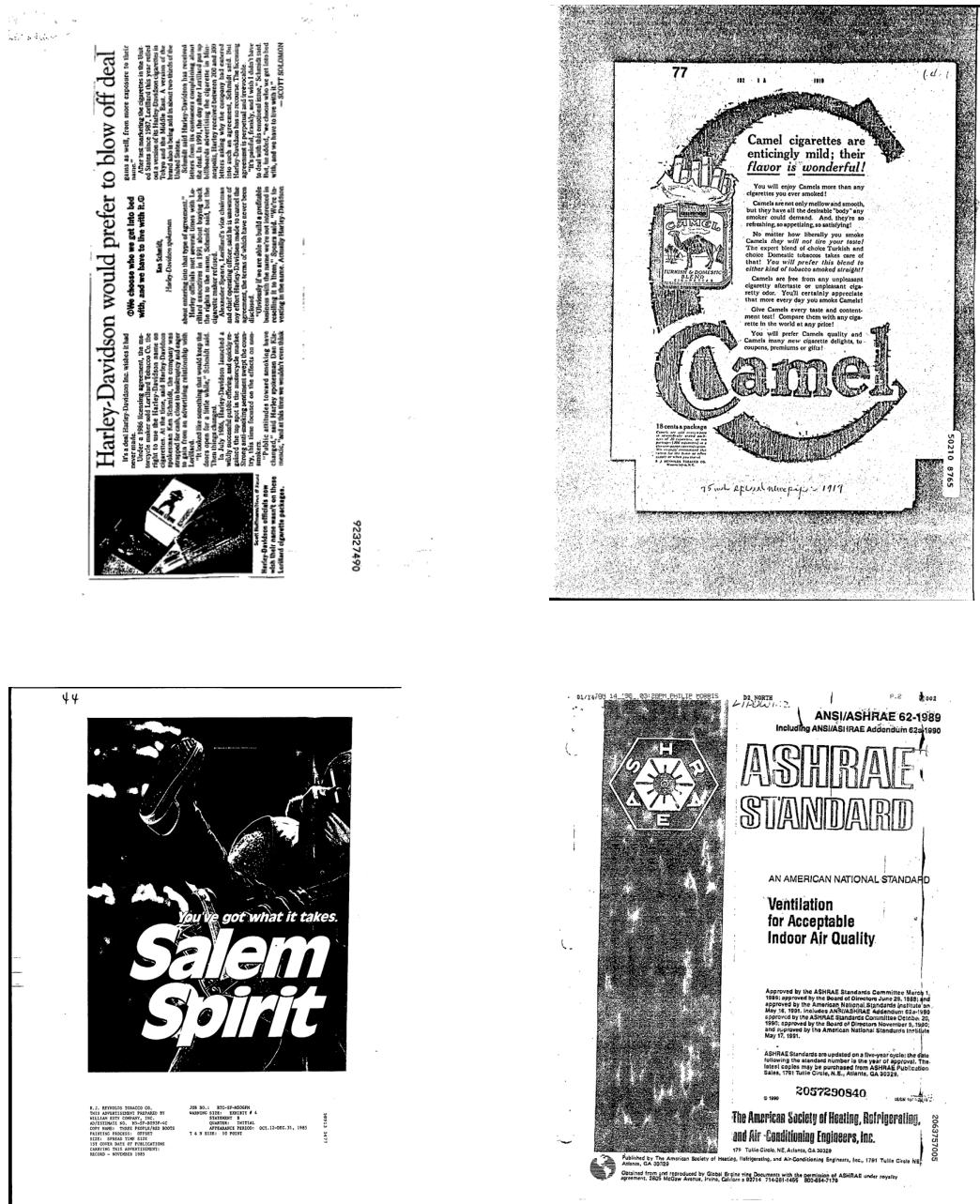


Figura 13: documentos con figuras.