

Denbury Carbon Solutions, LLC

Well Construction Details

Draco Storage Facility, Allen, Beauregard, and Vernon Parishes, Louisiana



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ACRONYMS/ABBREVIATIONS

Acronyms/Abbreviations	Definition
API	American Petroleum Institute
bgs	Below Ground Surface
°C	Degrees Celsius
CFR	Code of Federal Regulations
CO ₂	Carbon Dioxide
DF	Drill Floor
ELE	Elevation
°F	Degrees Fahrenheit
ft	Feet
gal	Gallon
GL	Ground Level
H ₂ S	Hydrogen Sulfide
ID	Inner Diameter
in	Inch
LA	Louisiana
LAC	Louisiana Administrative Code
lb	Pound
LDNR	Louisiana Department of Natural Resources
LLC	Limited Liability Company
KB	Kelly Bushing
MD	Measured Depth
µm	Micrometer
N/A	Not Applicable
NAD27	North American Datum of 1927
NPT	National Pipe Thread
OD	Outer Diameter
Perf	Perforation

pH	Potential of Hydrogen
ppf	Pounds per Foot
ppg	Pounds per Gallon
psi	Pound per Square Inch
SOW	Slip On Wellhead
sx	Sacks
UIC	Underground Injection Control
USDW	Underground Source of Drinking Water

1.0 FACILITY INFORMATION

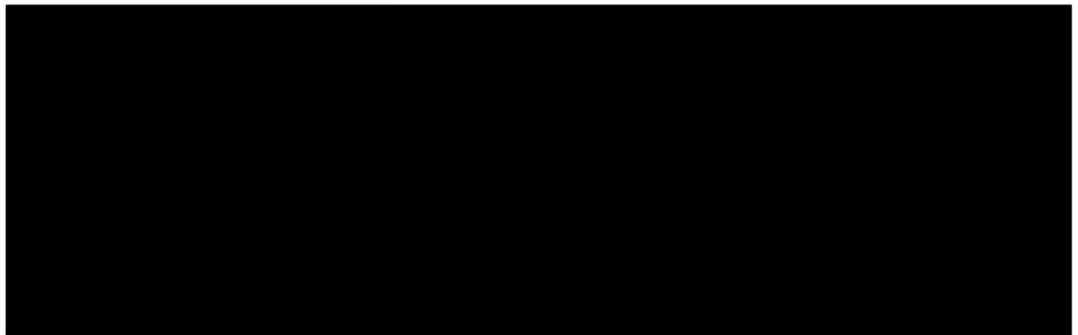
Facility Name: Draco Storage Facility

Facility Location:



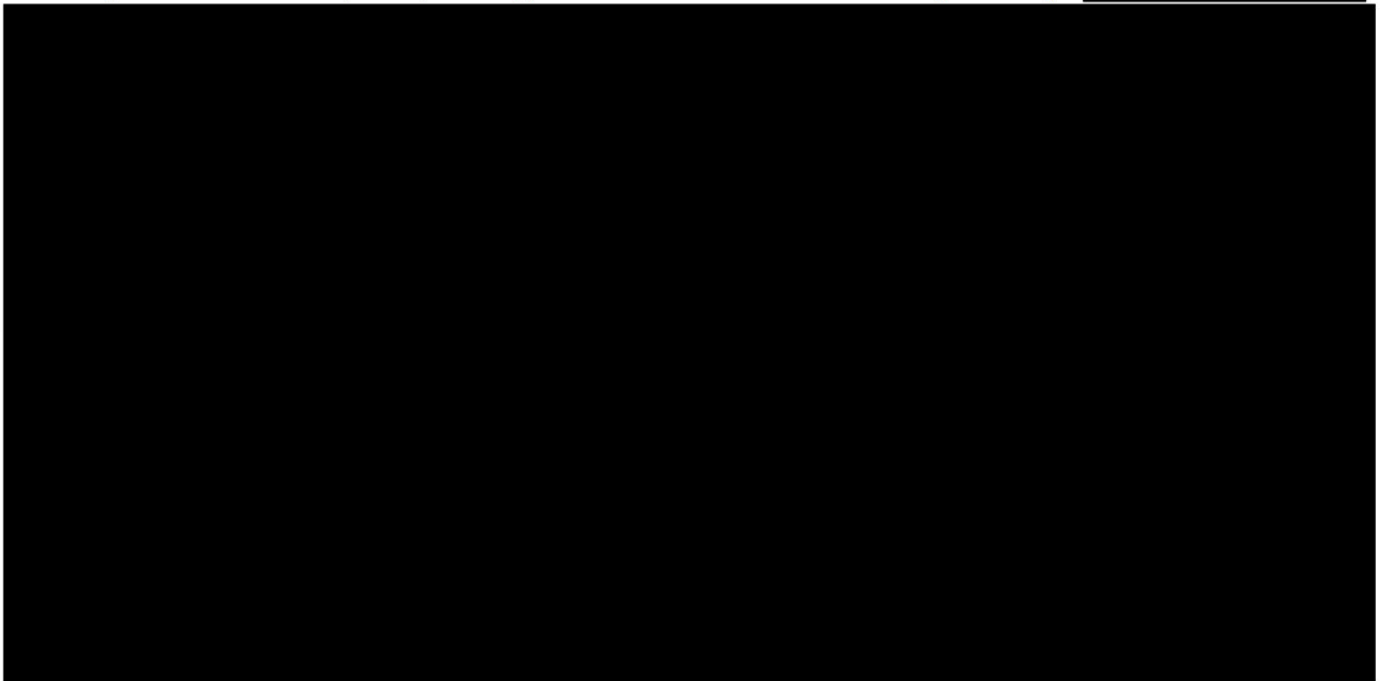
Mailing Address: 5851 Legacy Circle, Suite 1200
Plano, Texas 75024

Well Location(s)



2.0 WELL DESIGN

This Well Construction Details document defines the design basis, assumptions, and construction plans Denbury Carbon Solutions, LLC (Denbury) will execute at the Draco Storage Facility. 





The following sections describe the injection well design, including information about wellhead injection pressure, casing, tubing, cementing, packer, annular fluid, the wellhead, perforations, and schematics.

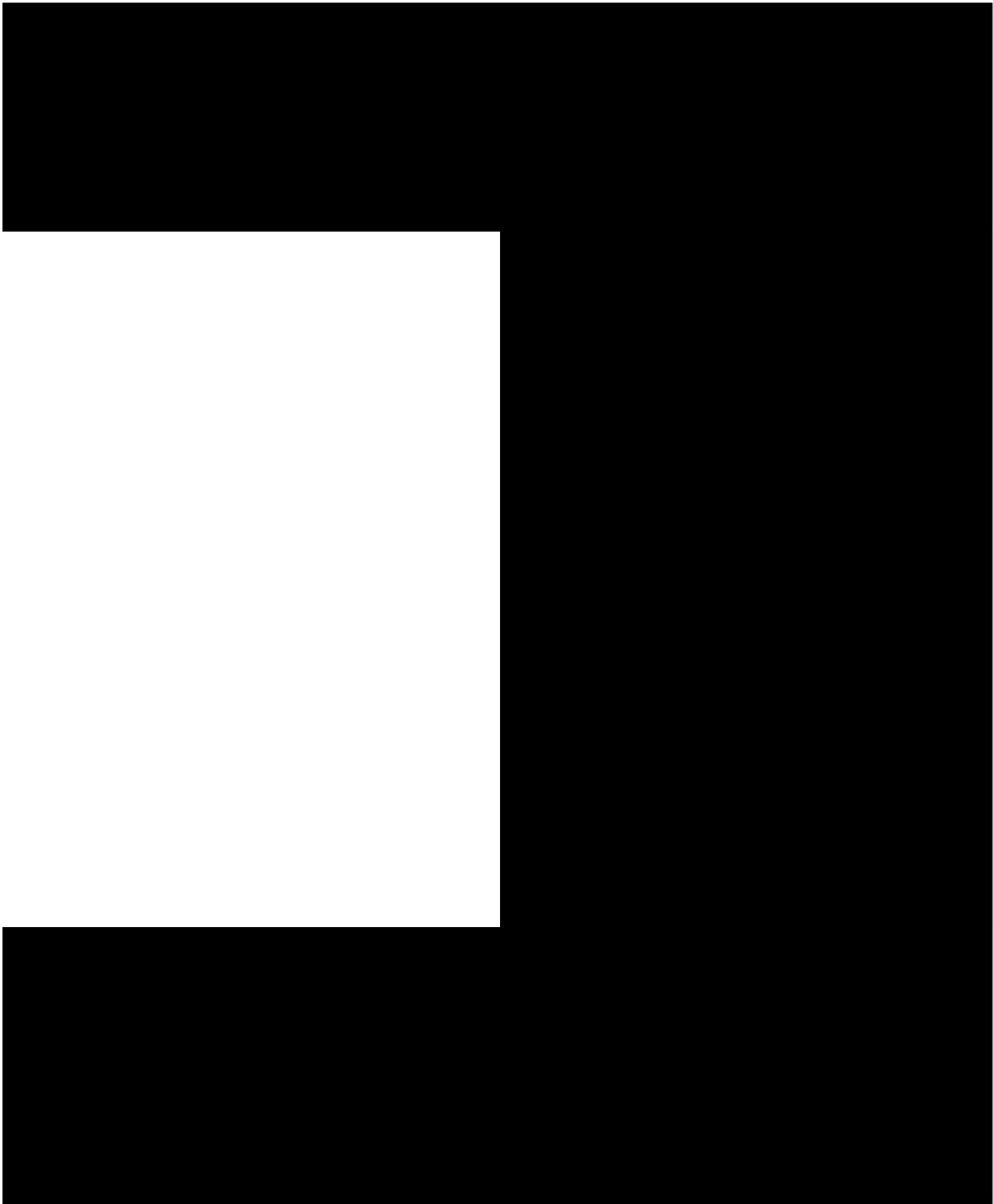
2.1 AVERAGE AND MAXIMUM WELLHEAD INJECTION PRESSURE

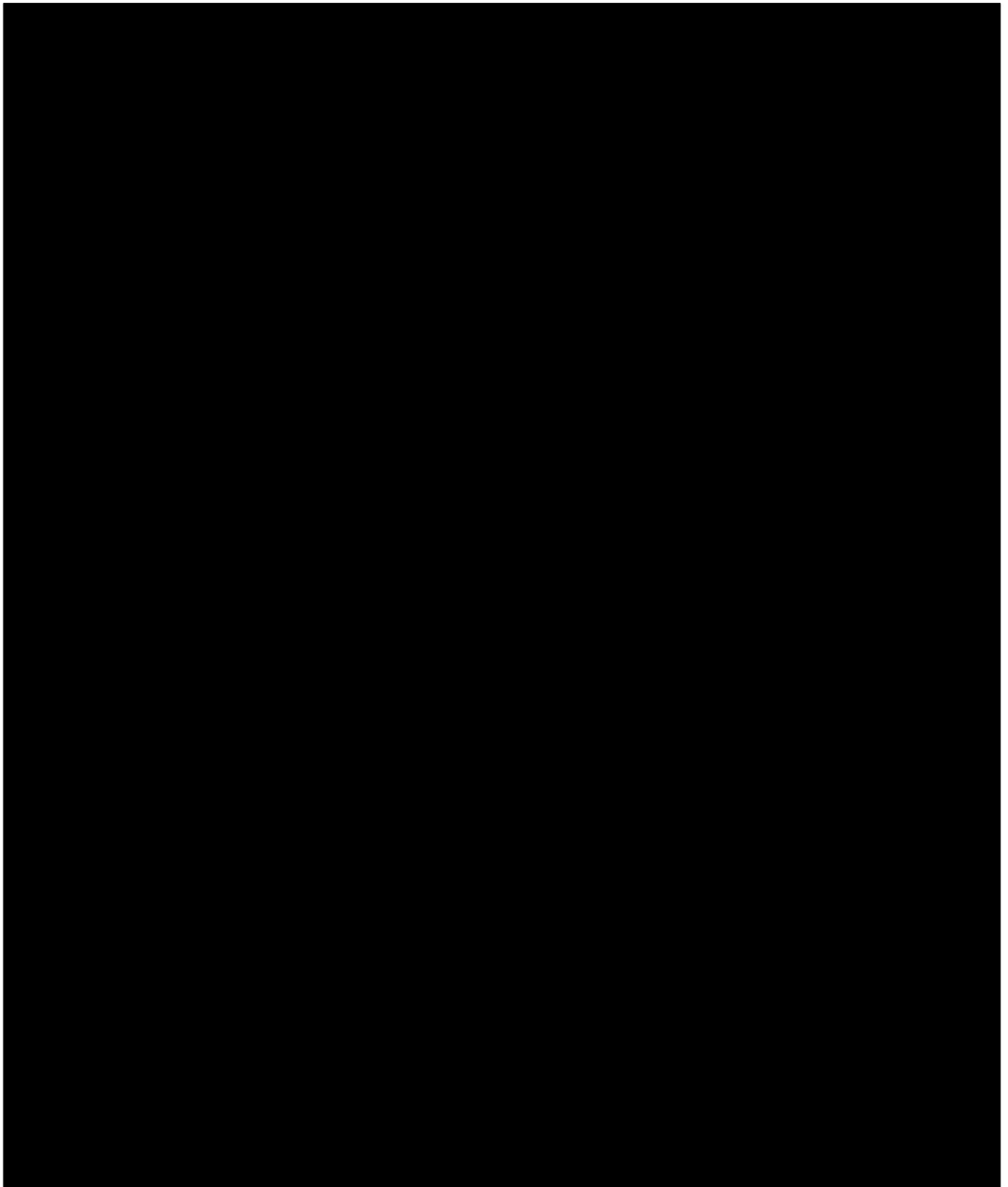
3.0 CASING AND TUBING PROGRAM

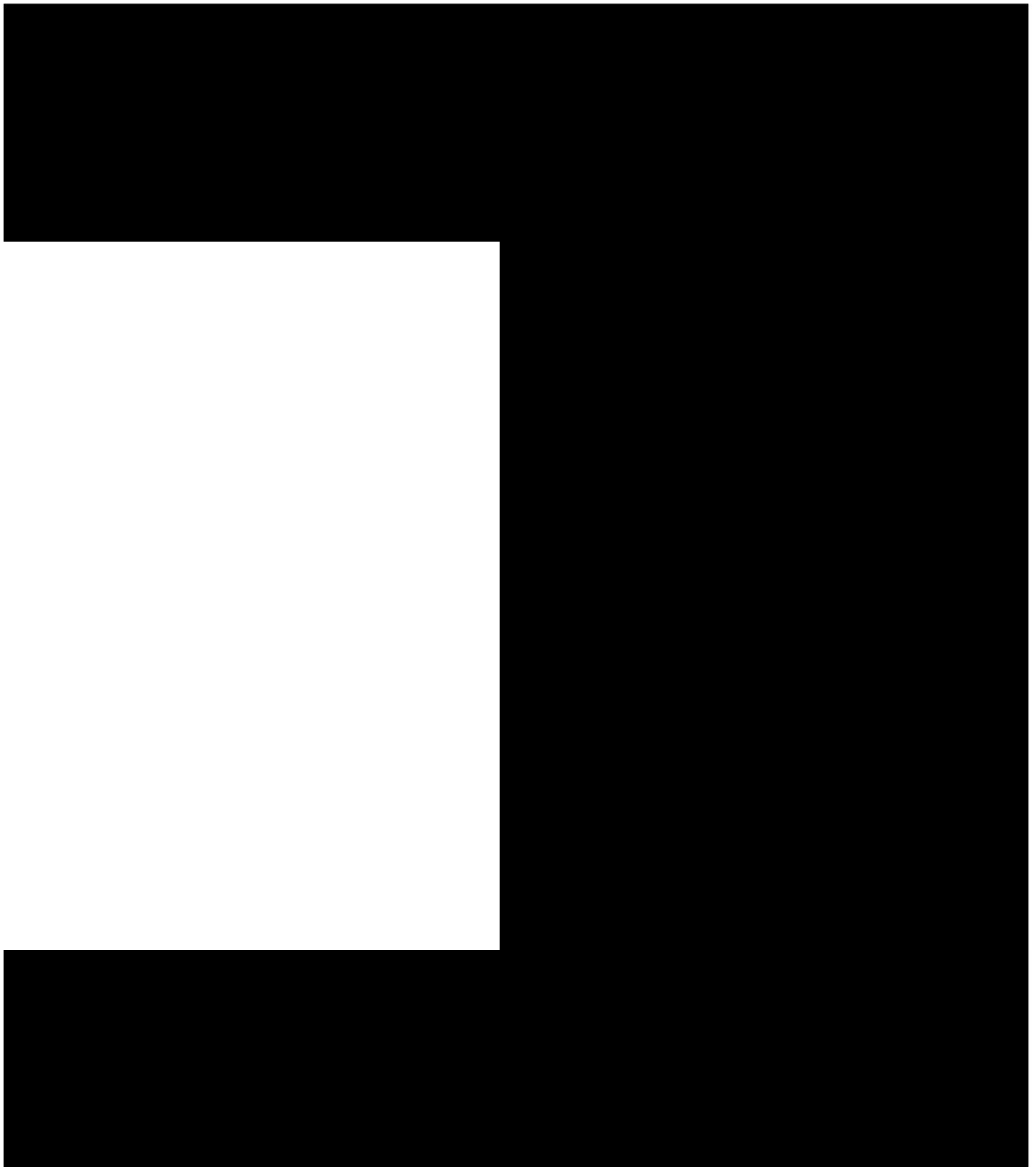
The safety design factors are as follows:

3.1 INJECTION WELL CONDUCTOR CASING

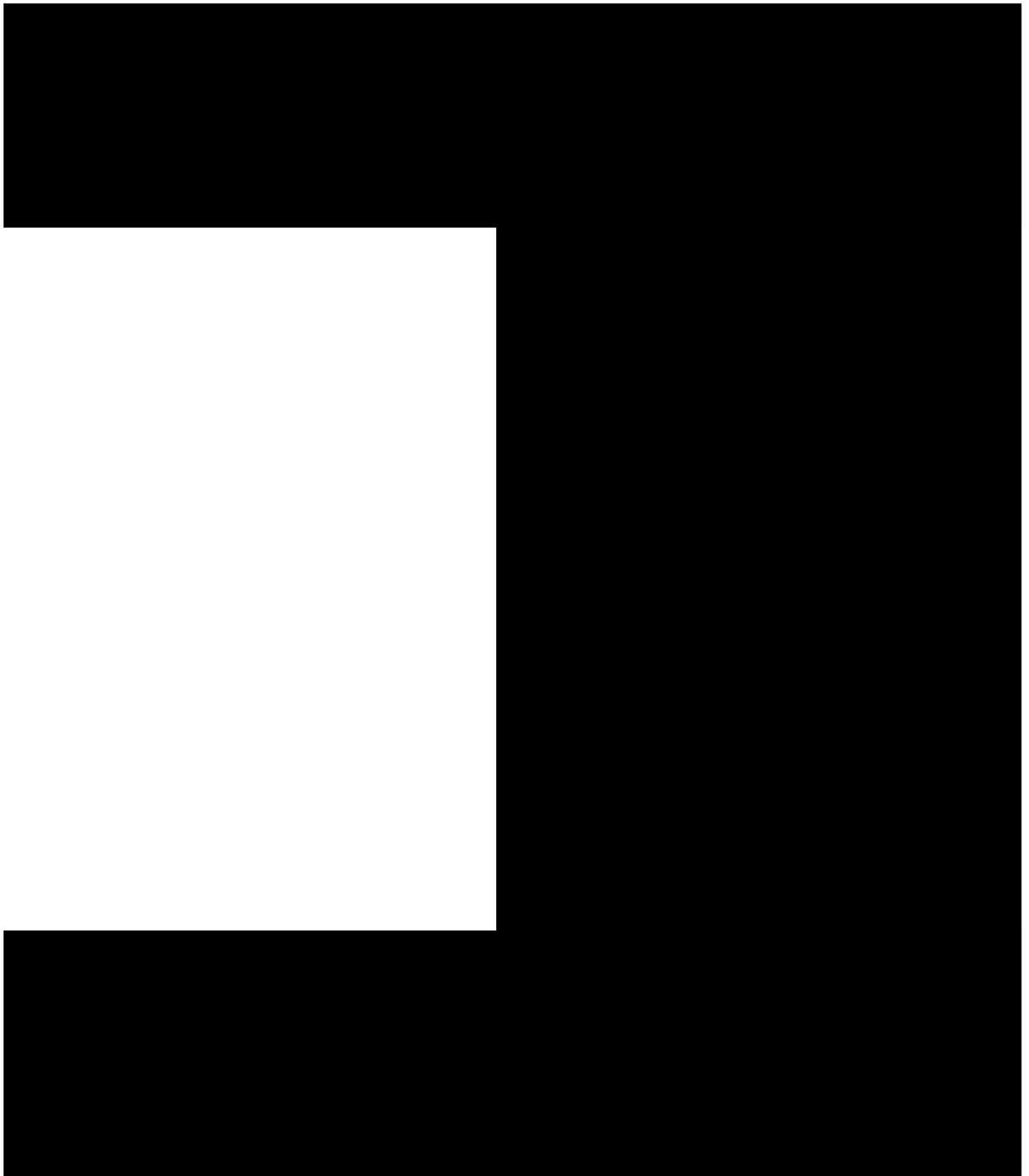
3.2 INJECTION WELL SURFACE CASING

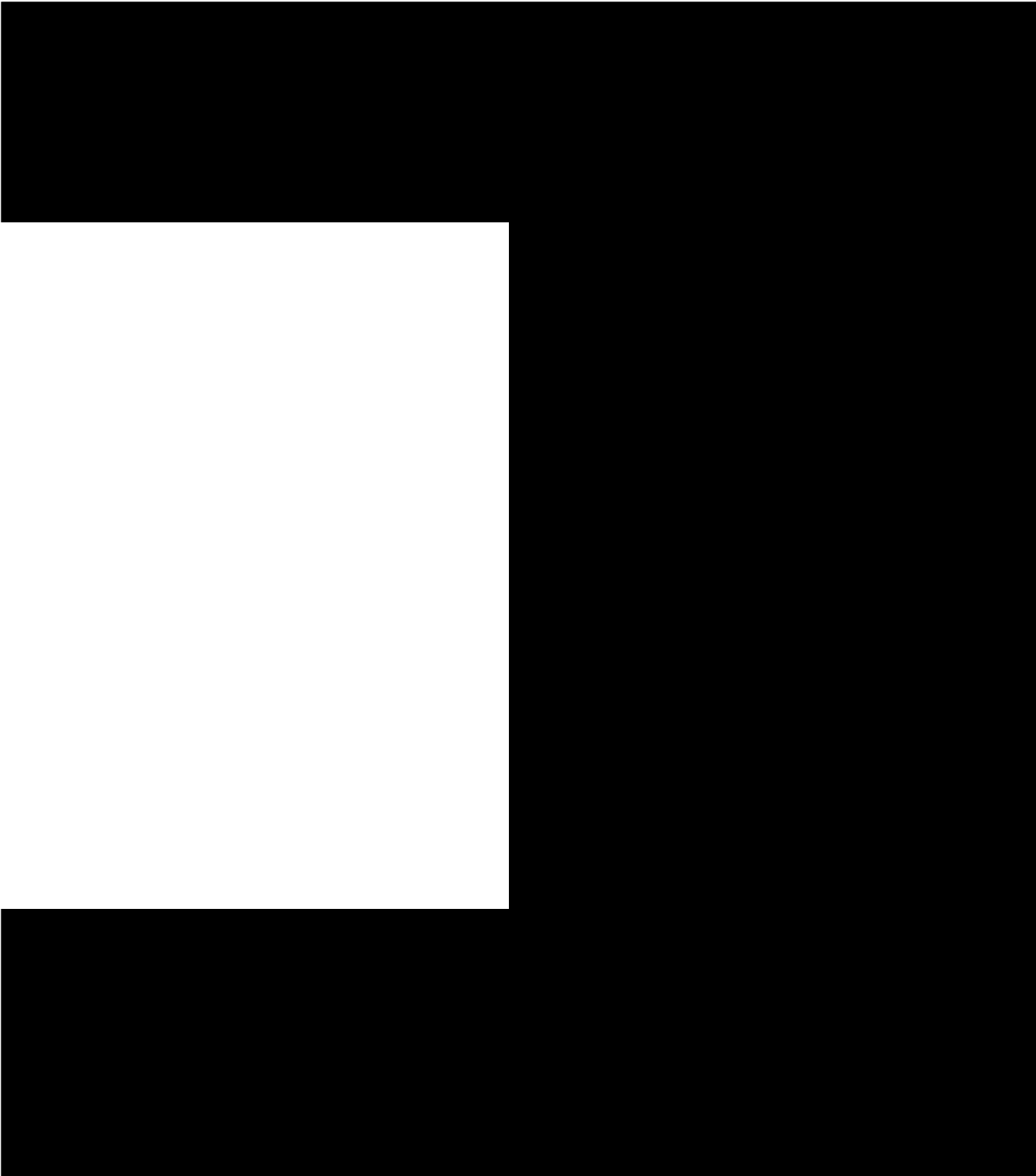


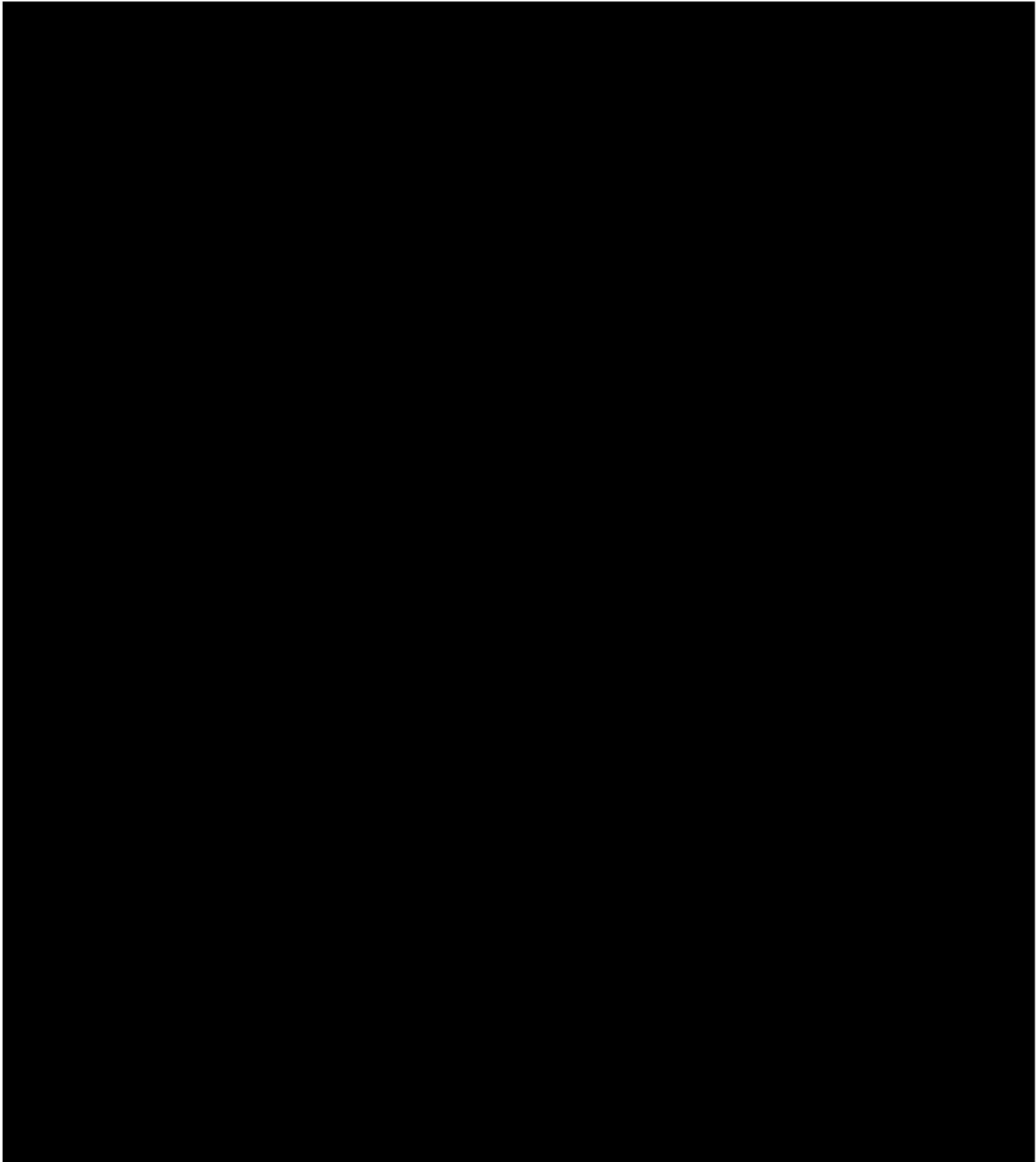


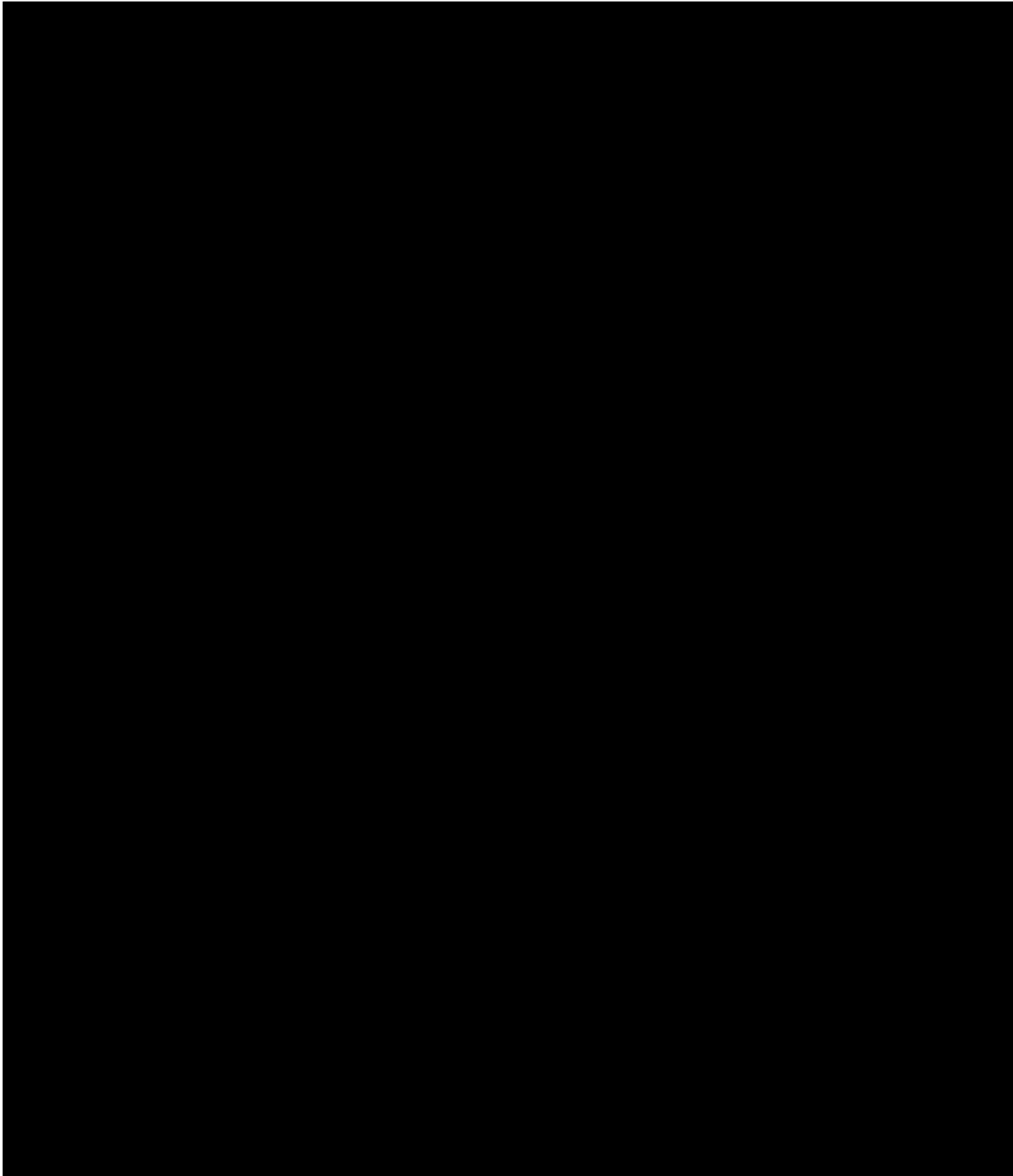


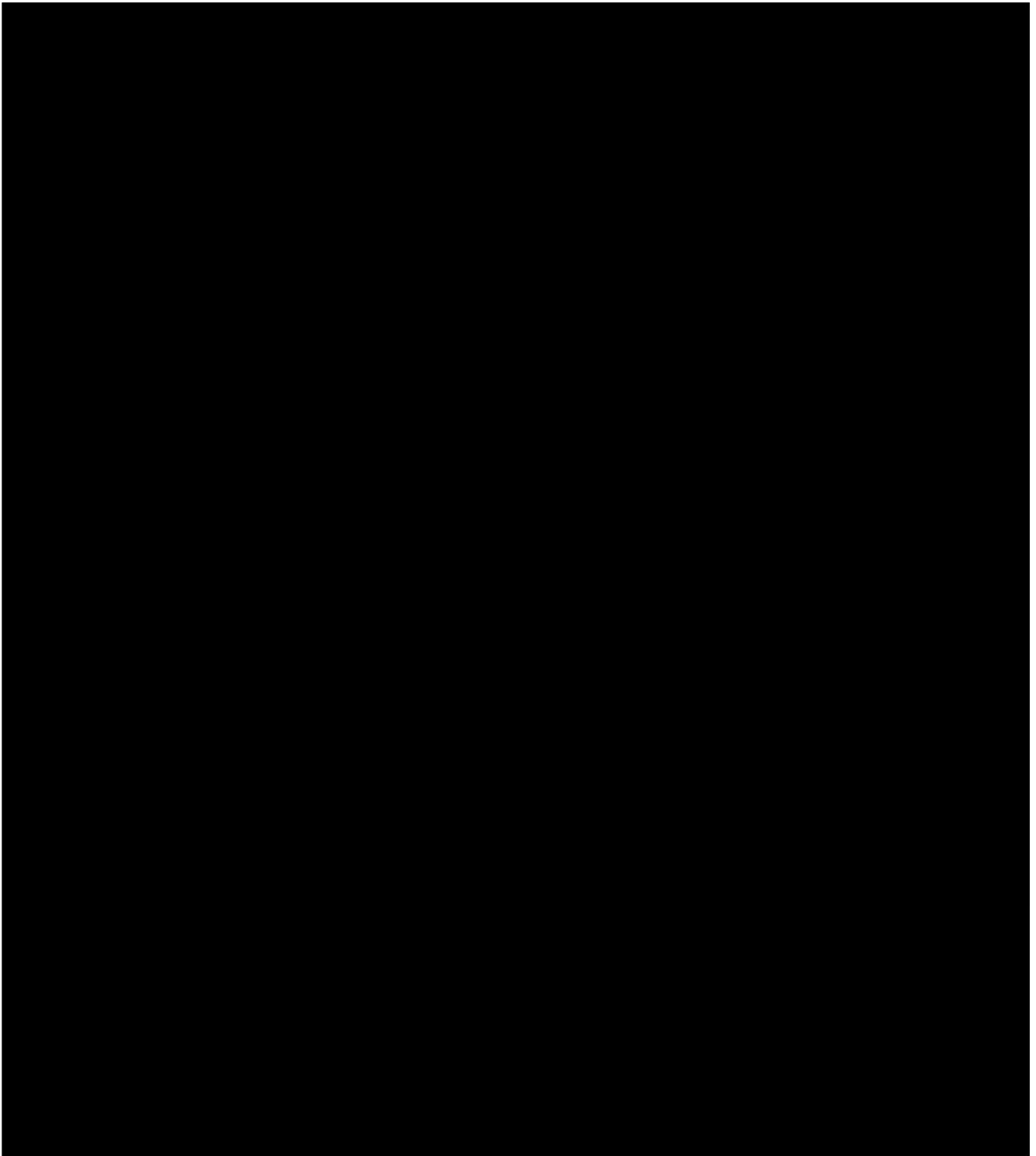


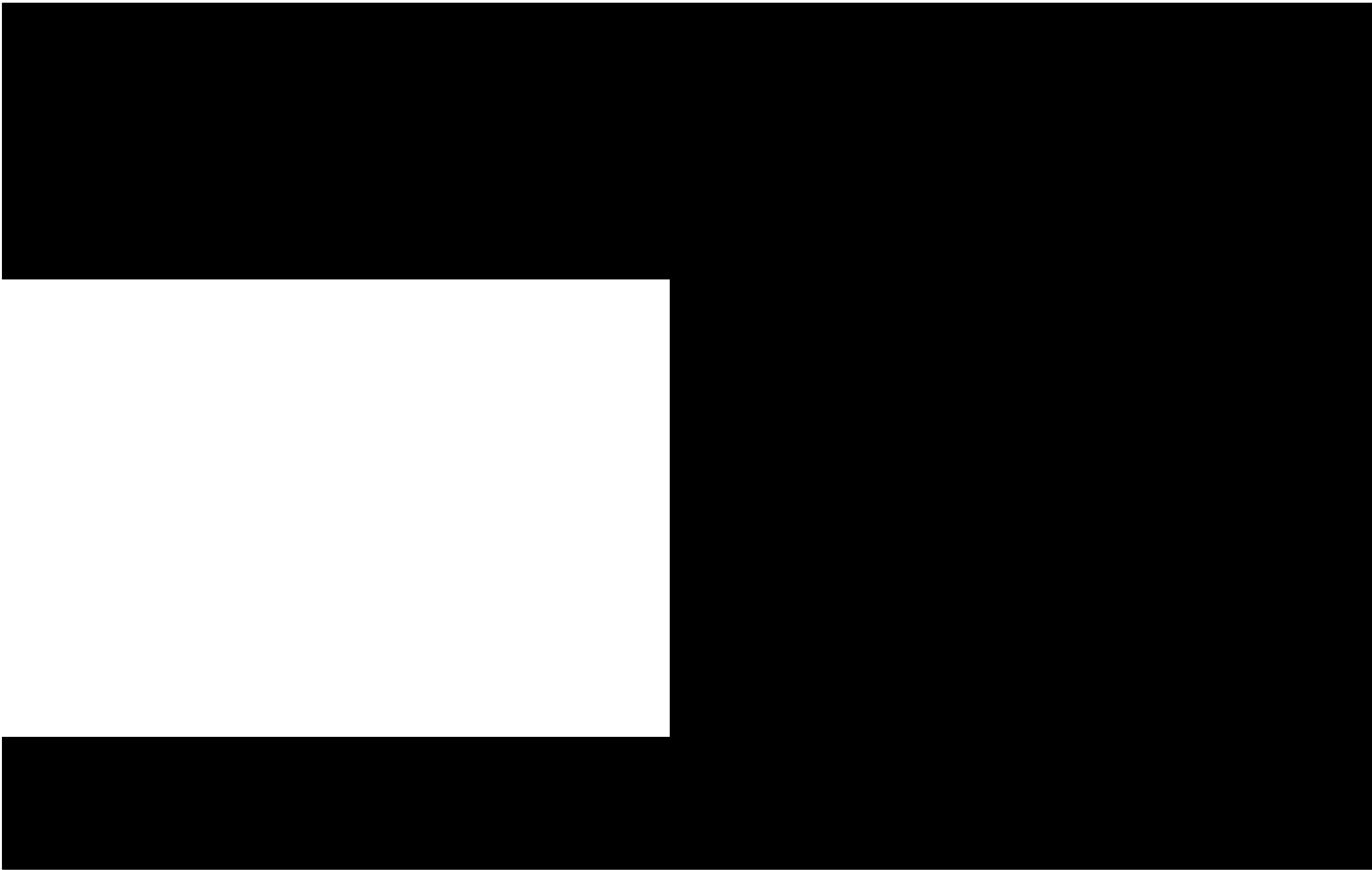




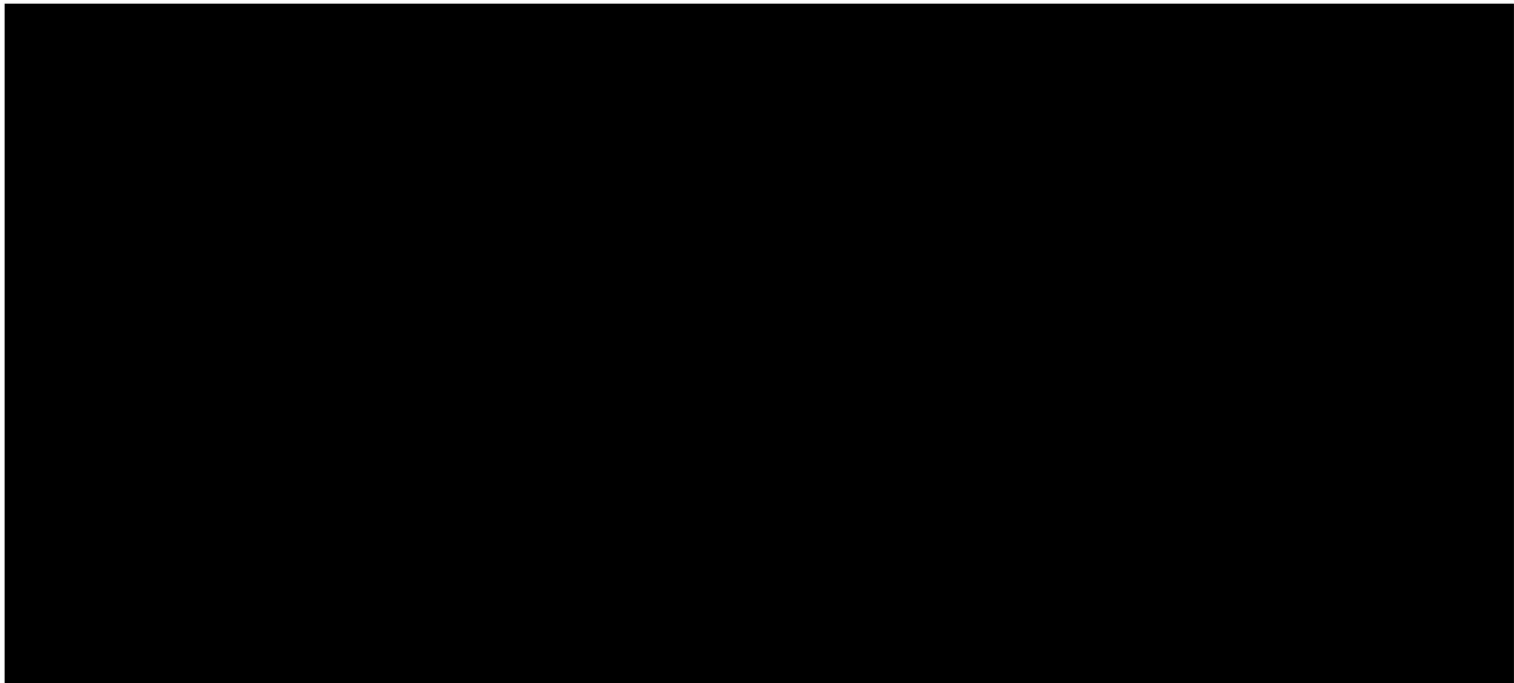


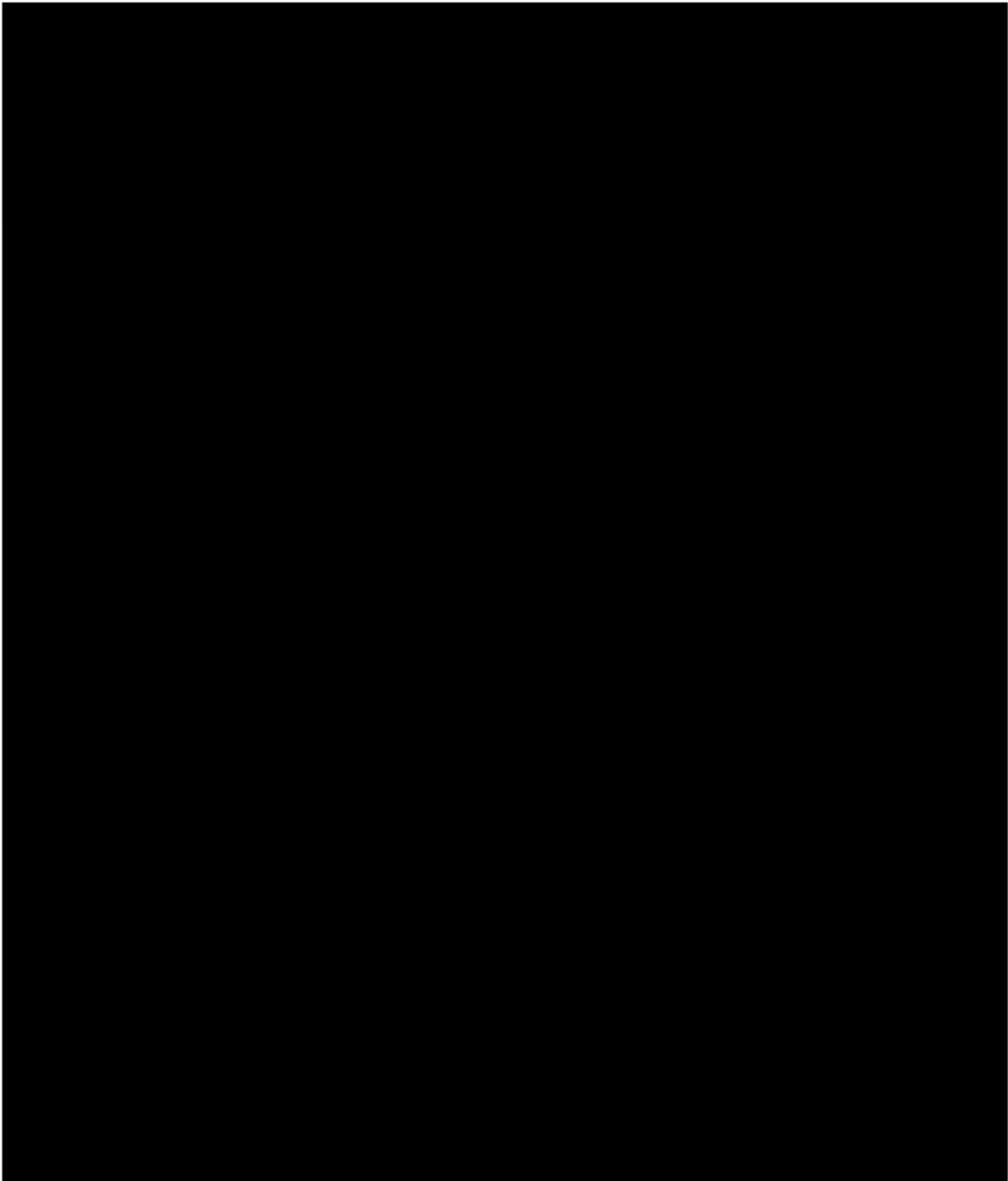


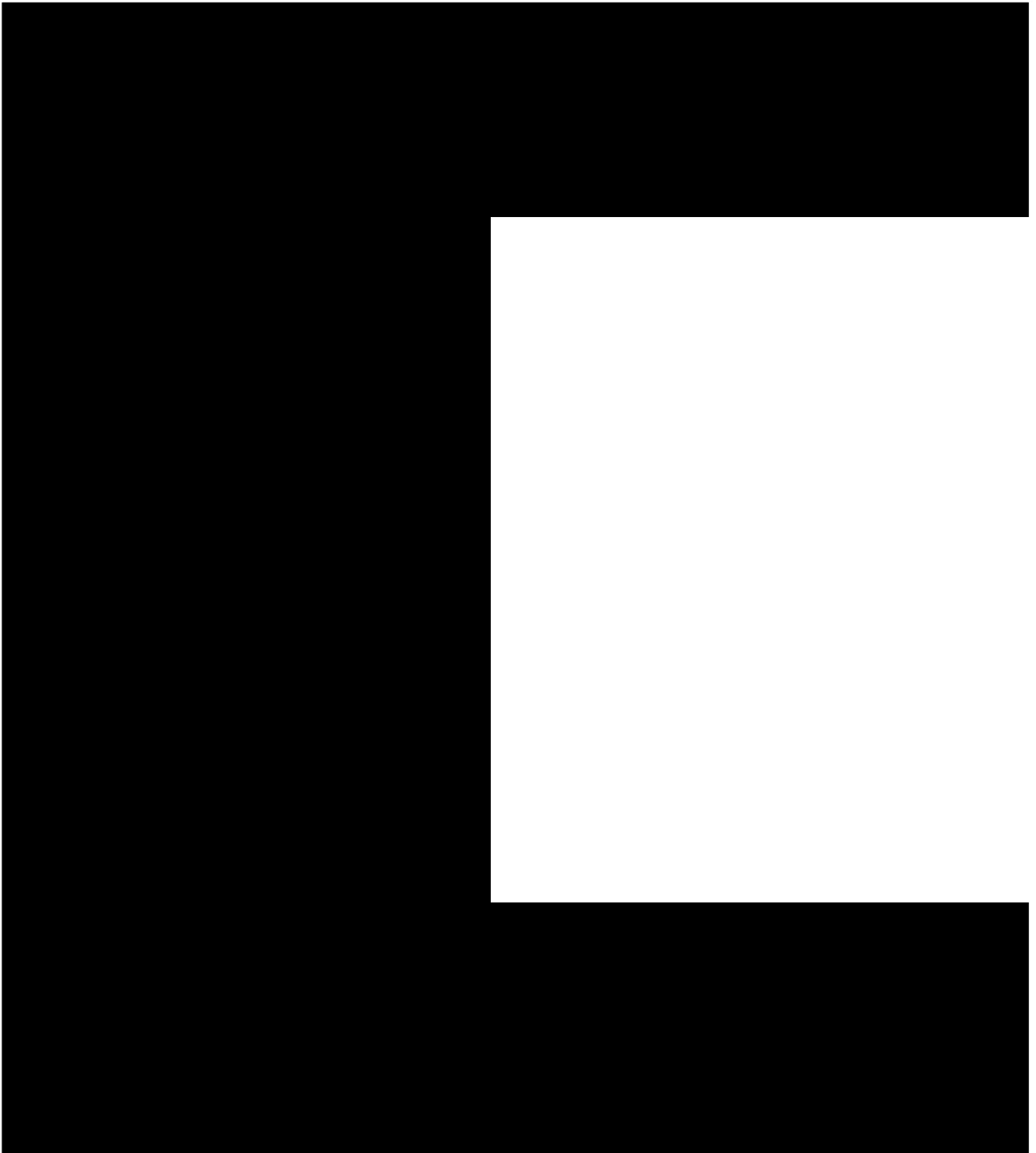


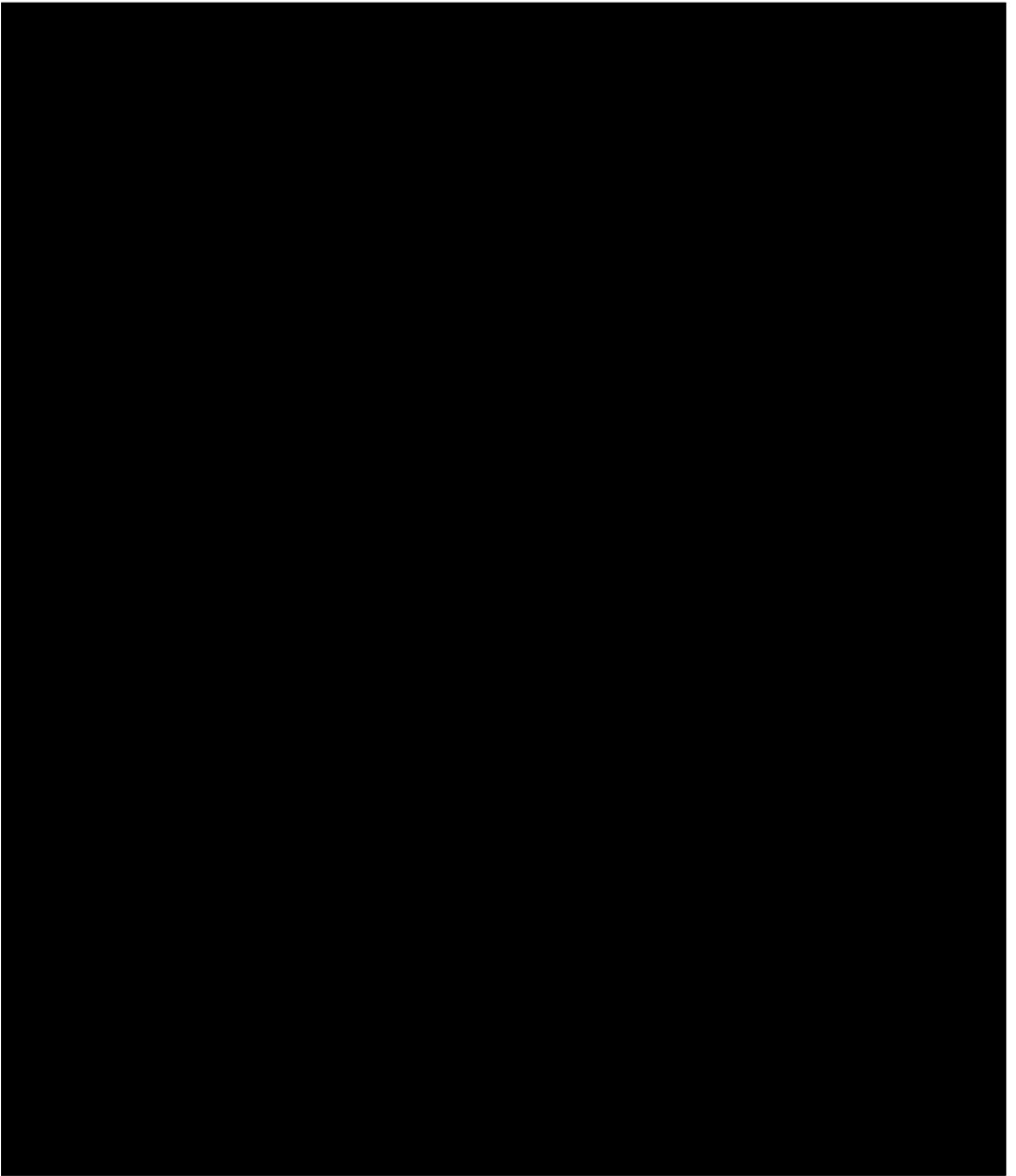


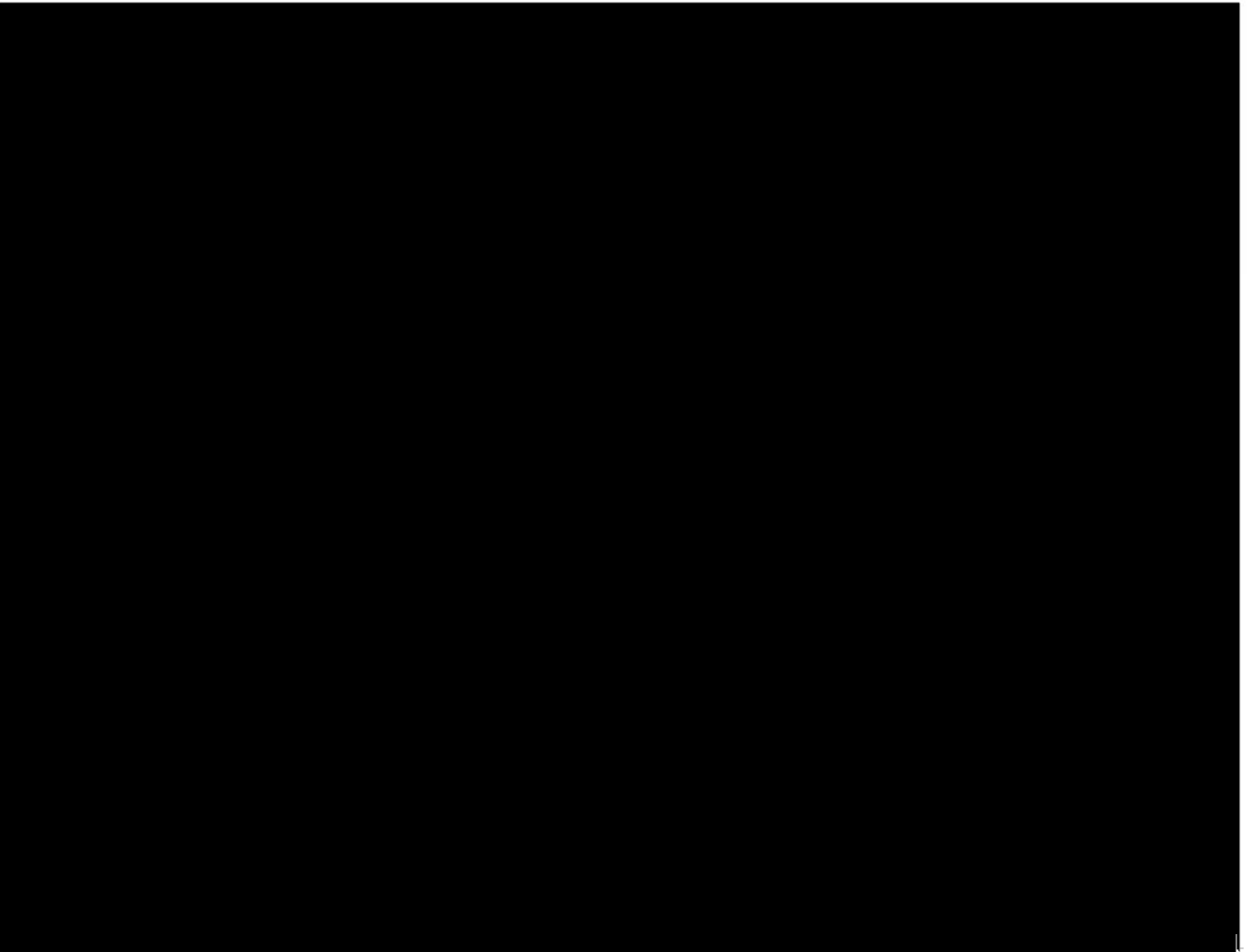
3.7 CASING AND TUBING SUMMARY FOR INJECTION WELLS





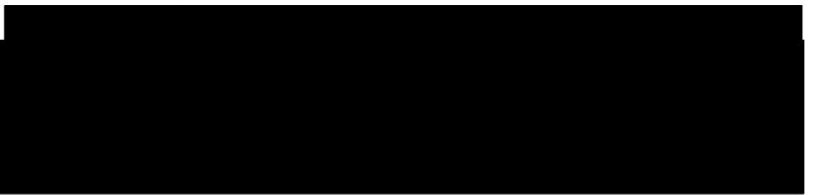


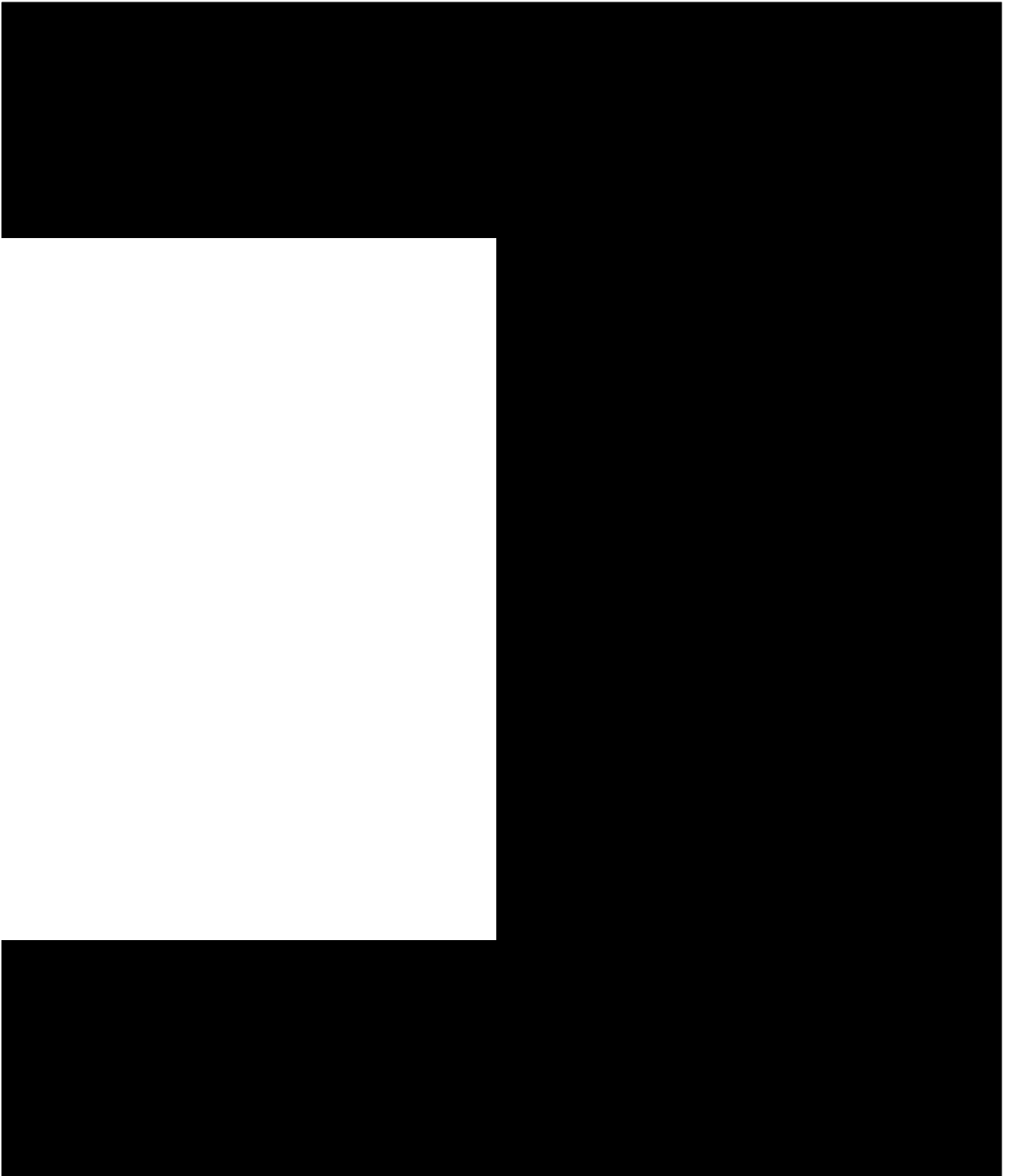


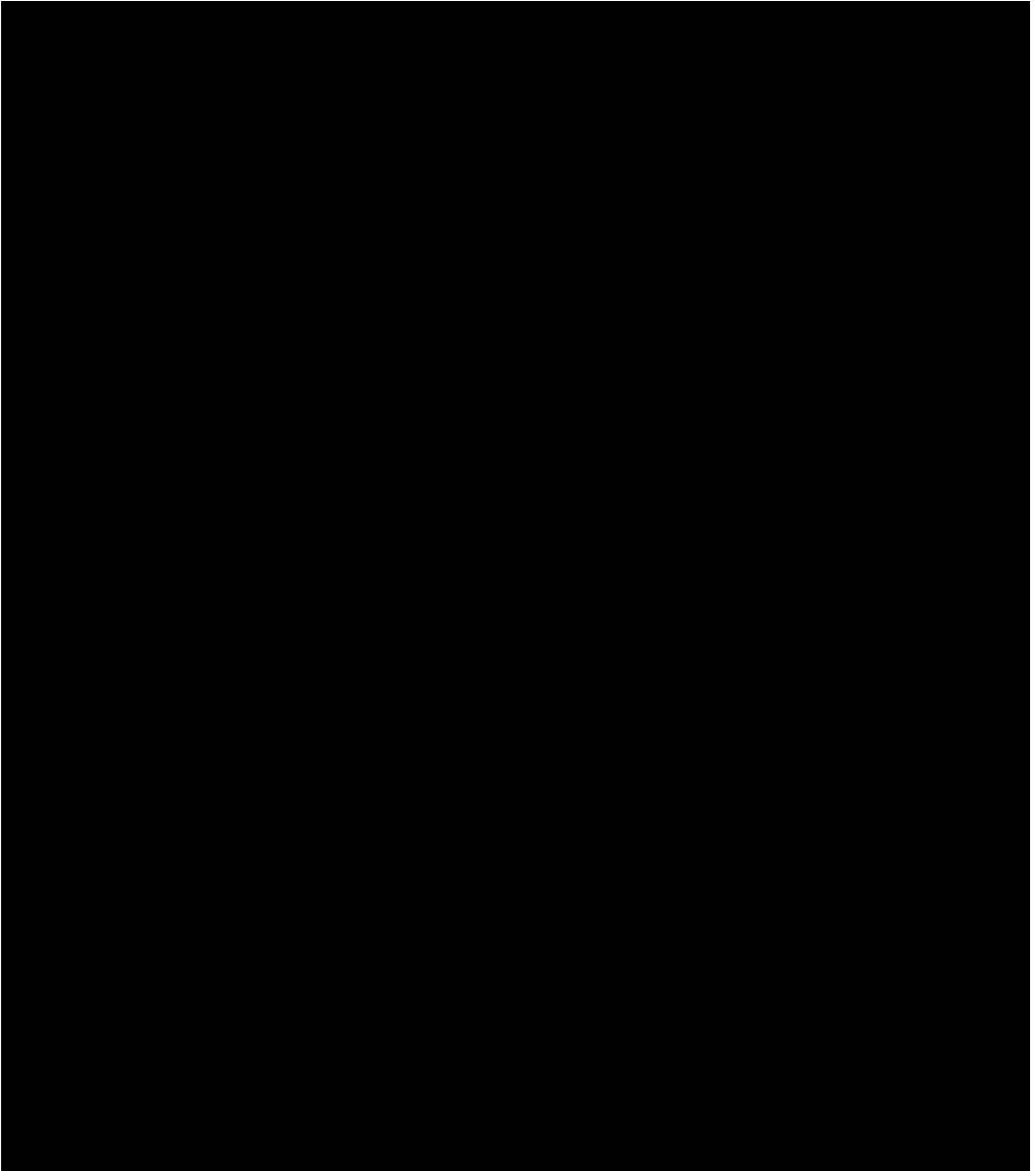


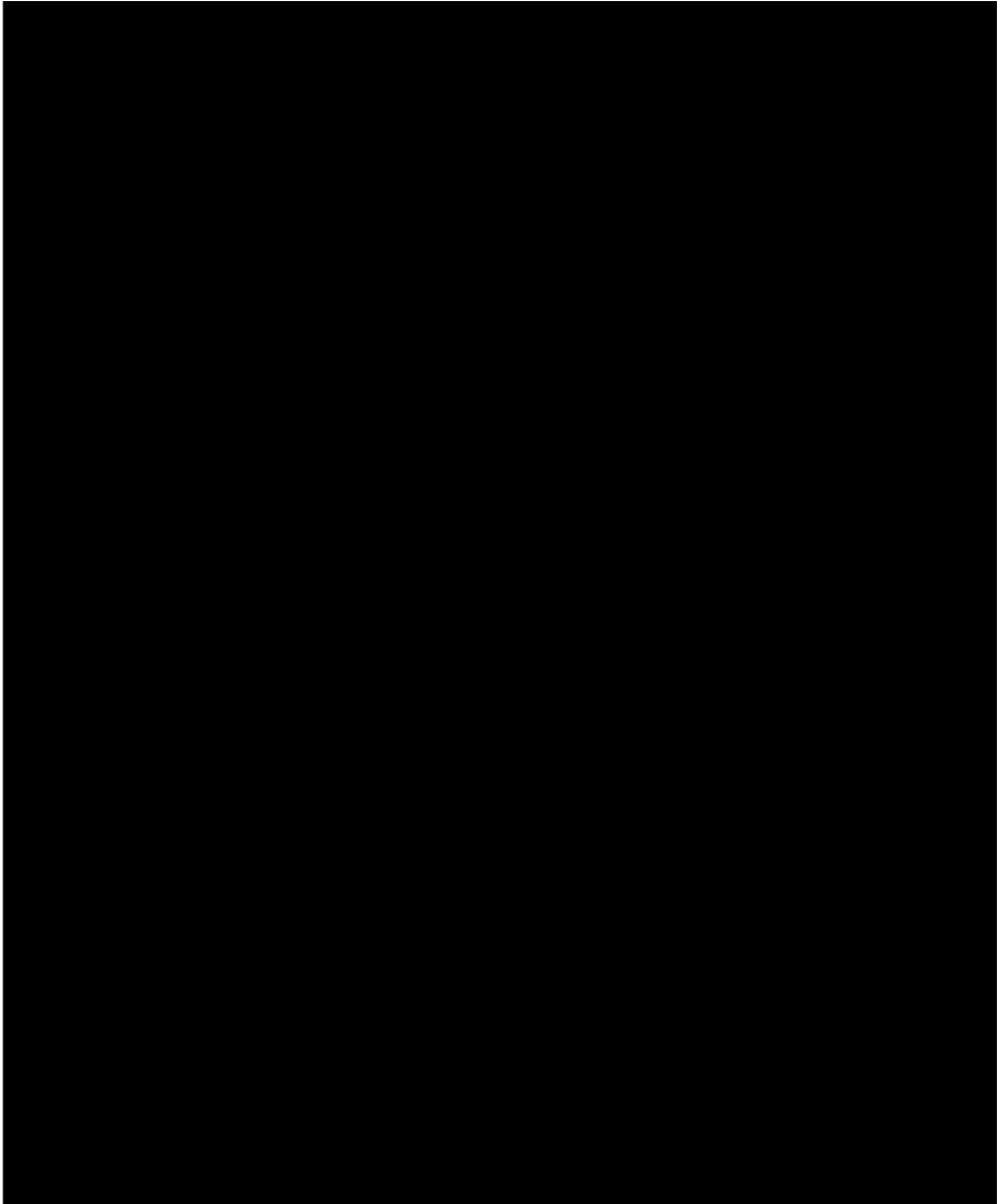
4.0 CEMENTING PROGRAM

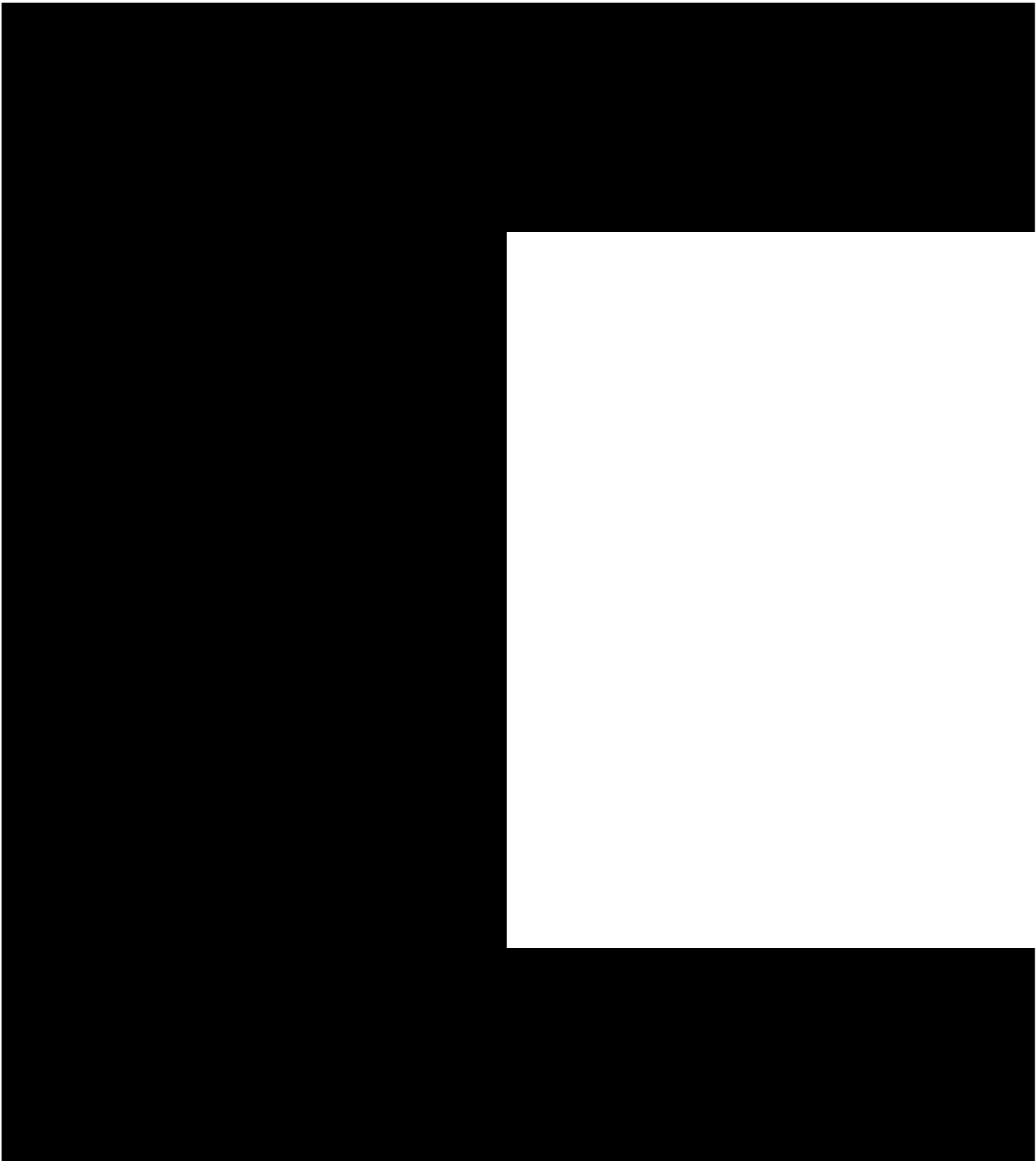
4.1 INJECTION WELLS

 summarize the cementing details for the injection wells. Pursuant to 40 CFR 146.88(a)(2)(ii), (a)(3)(ii) and LAC43: XVII 3617.B.1.b.ii, B.2.c.ii, 









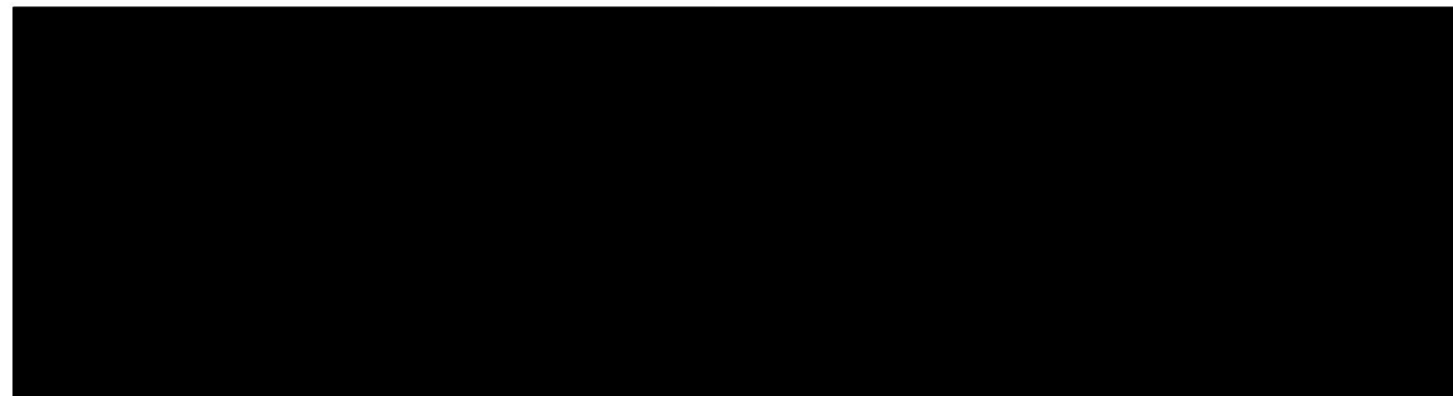
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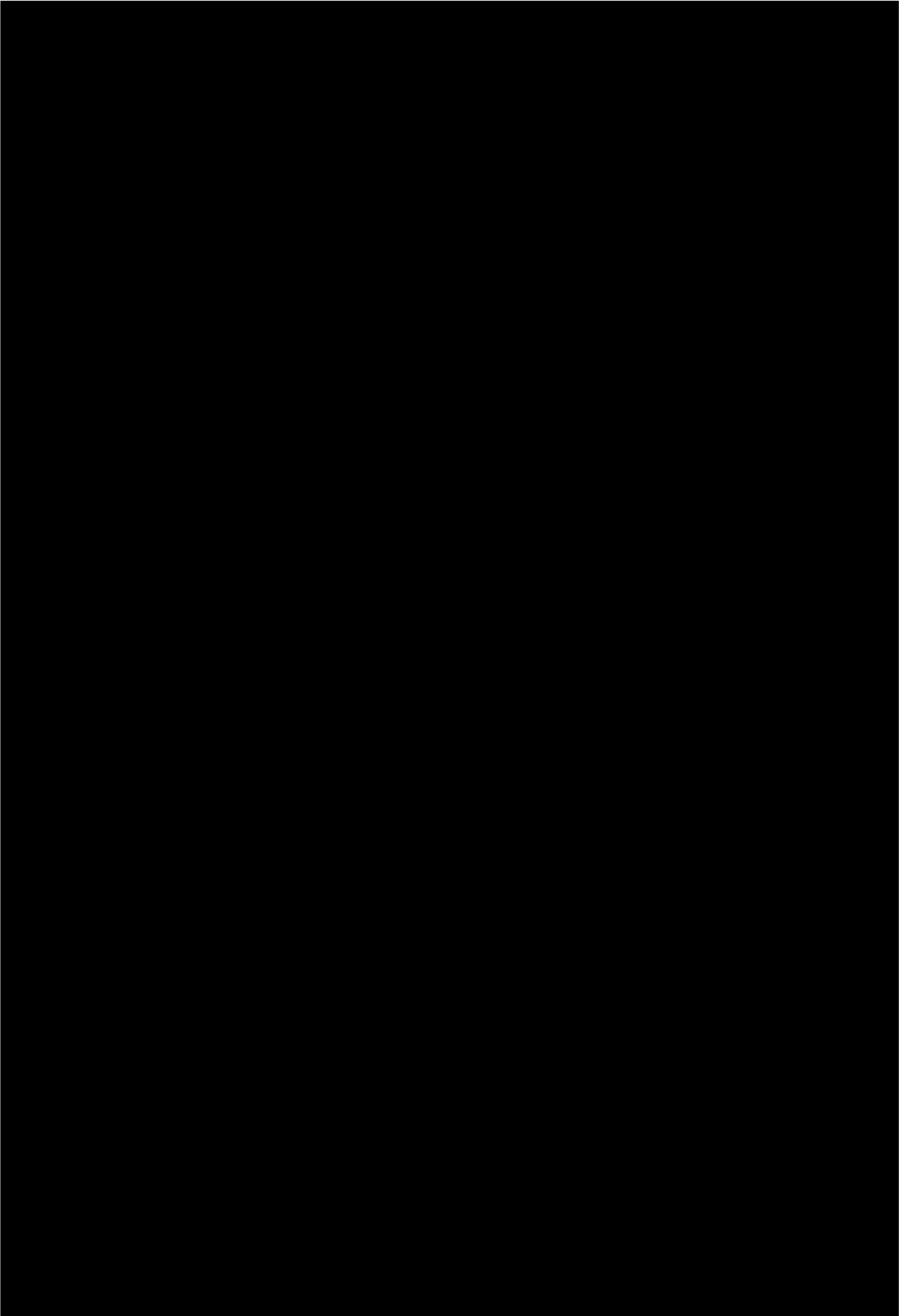
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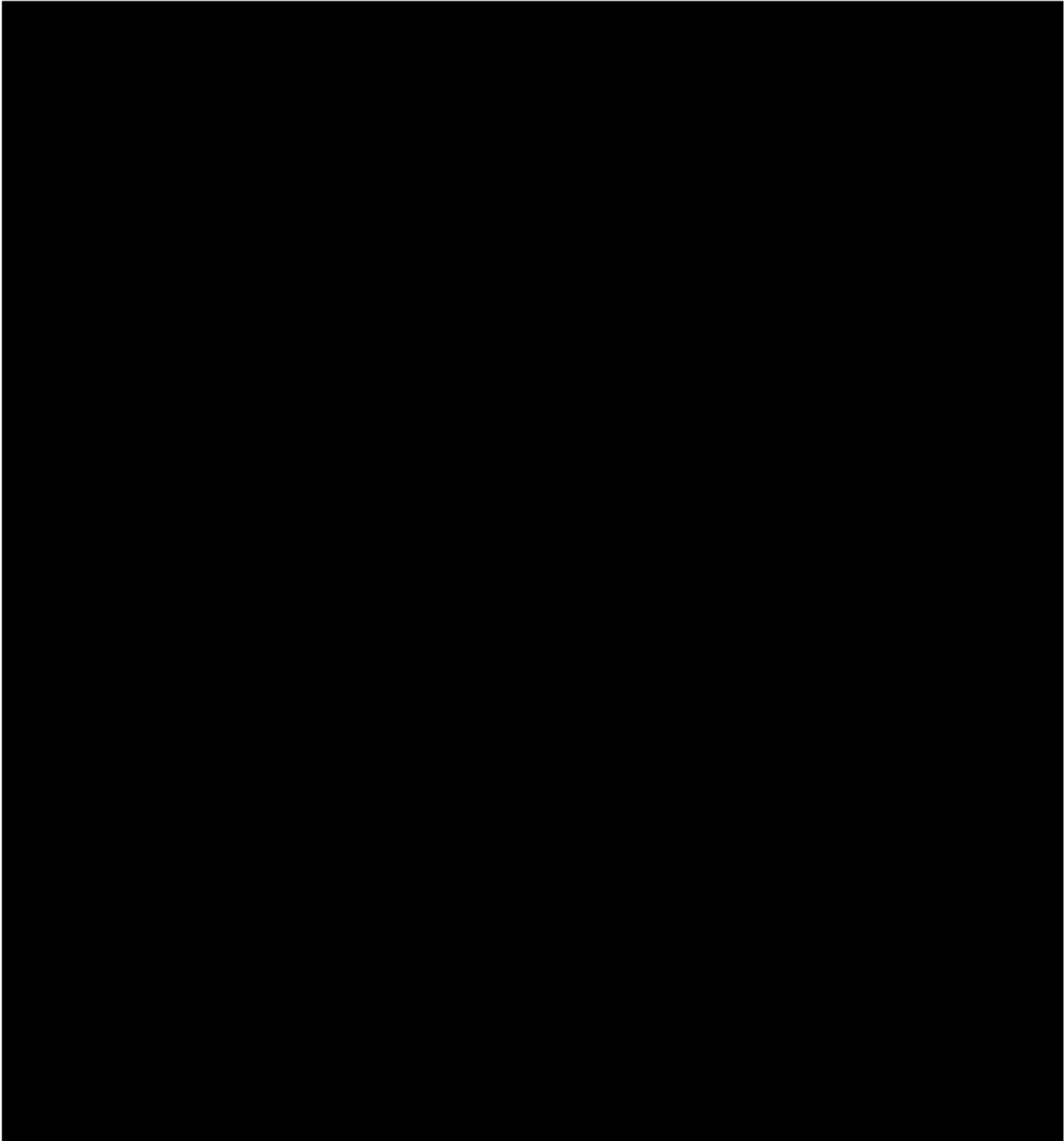
7.0 WELLHEAD

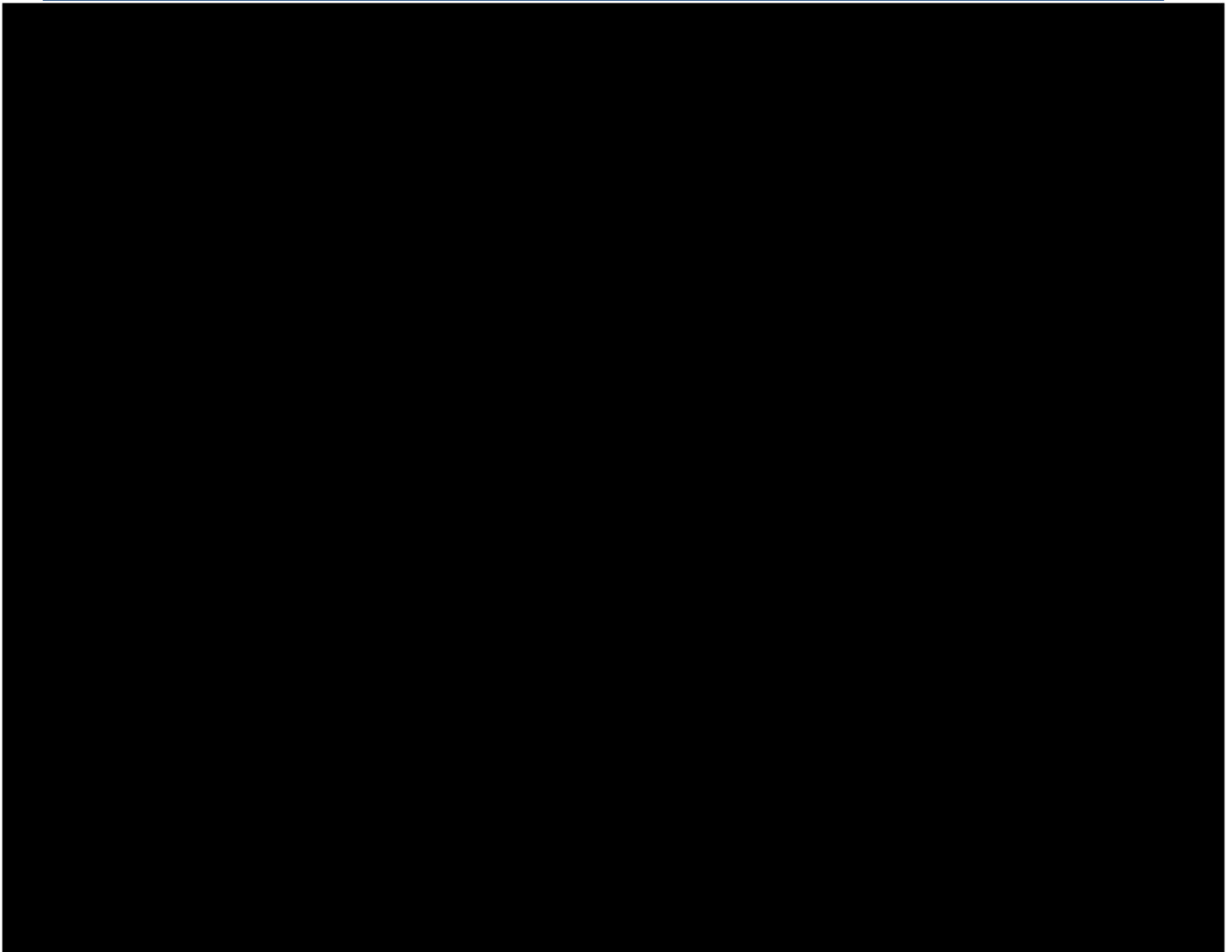


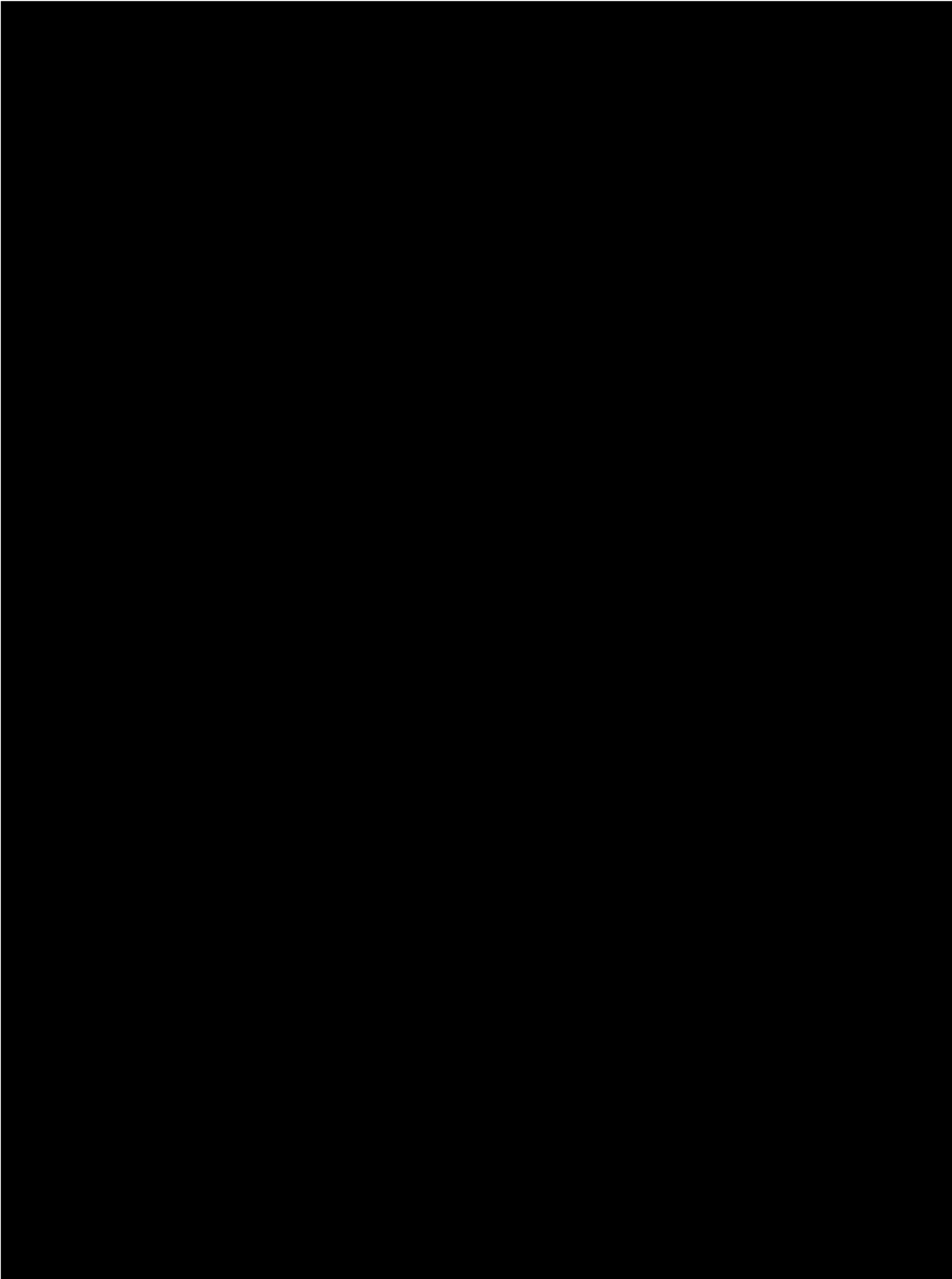


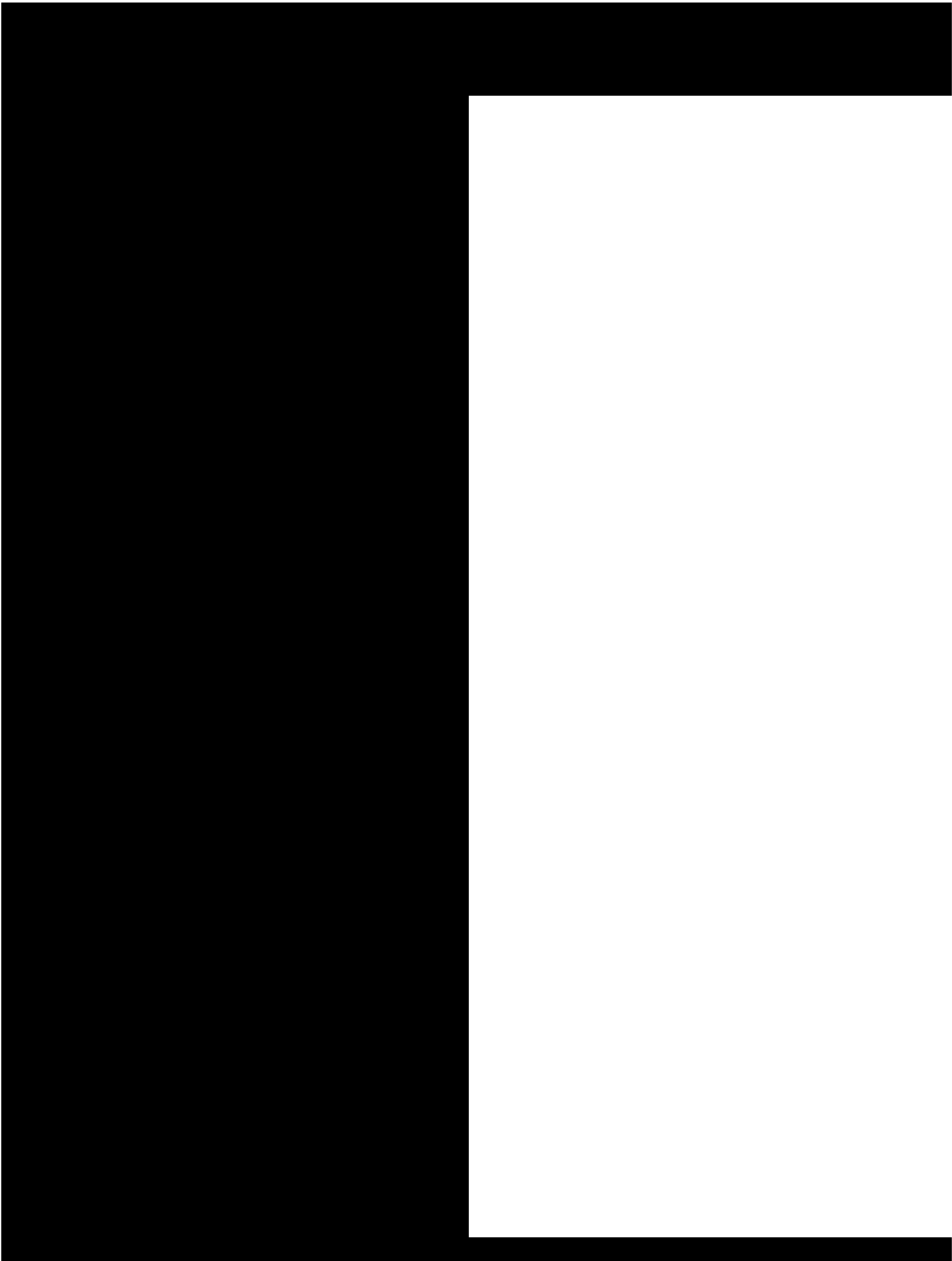


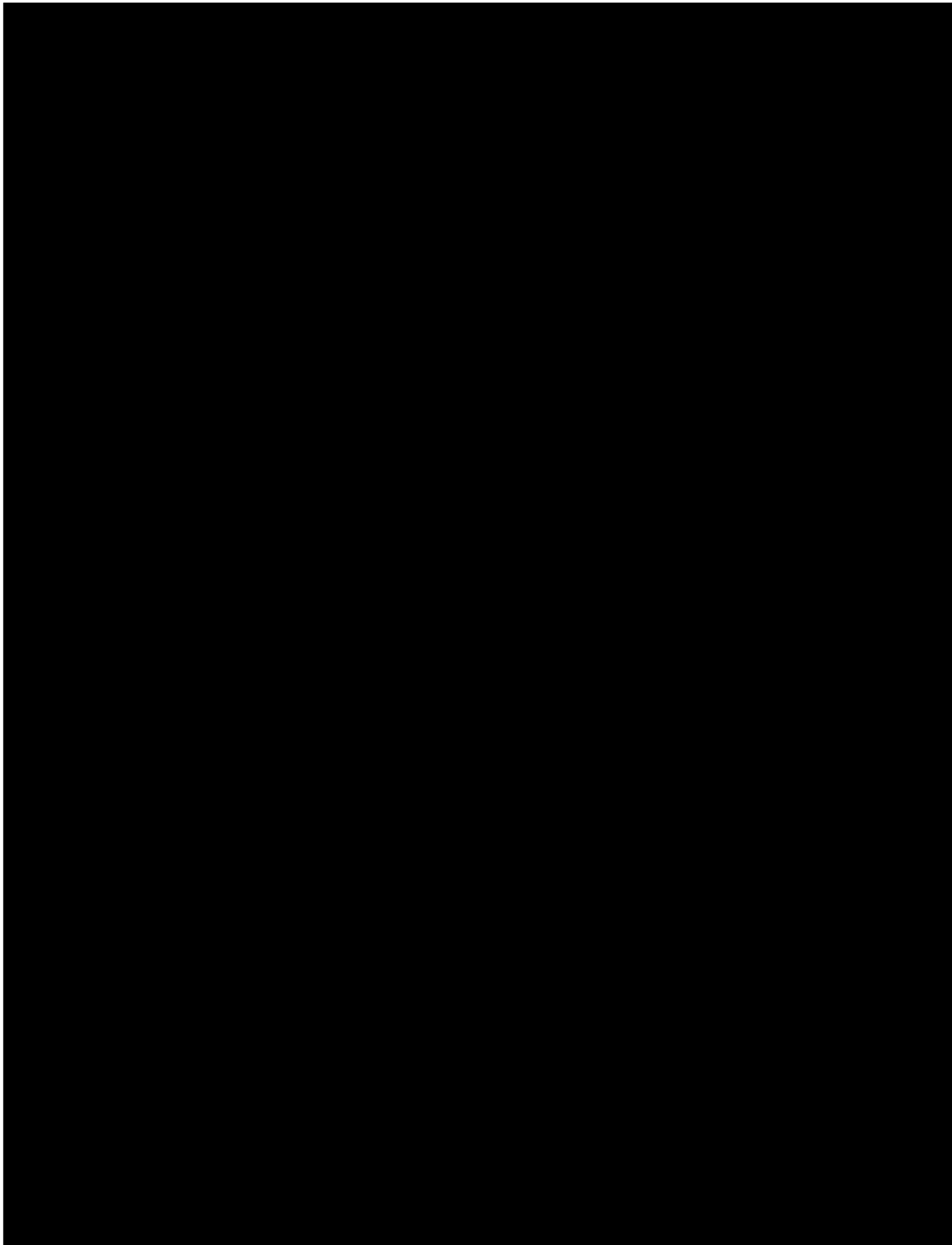
8.0 WELL OPENINGS TO FORMATION

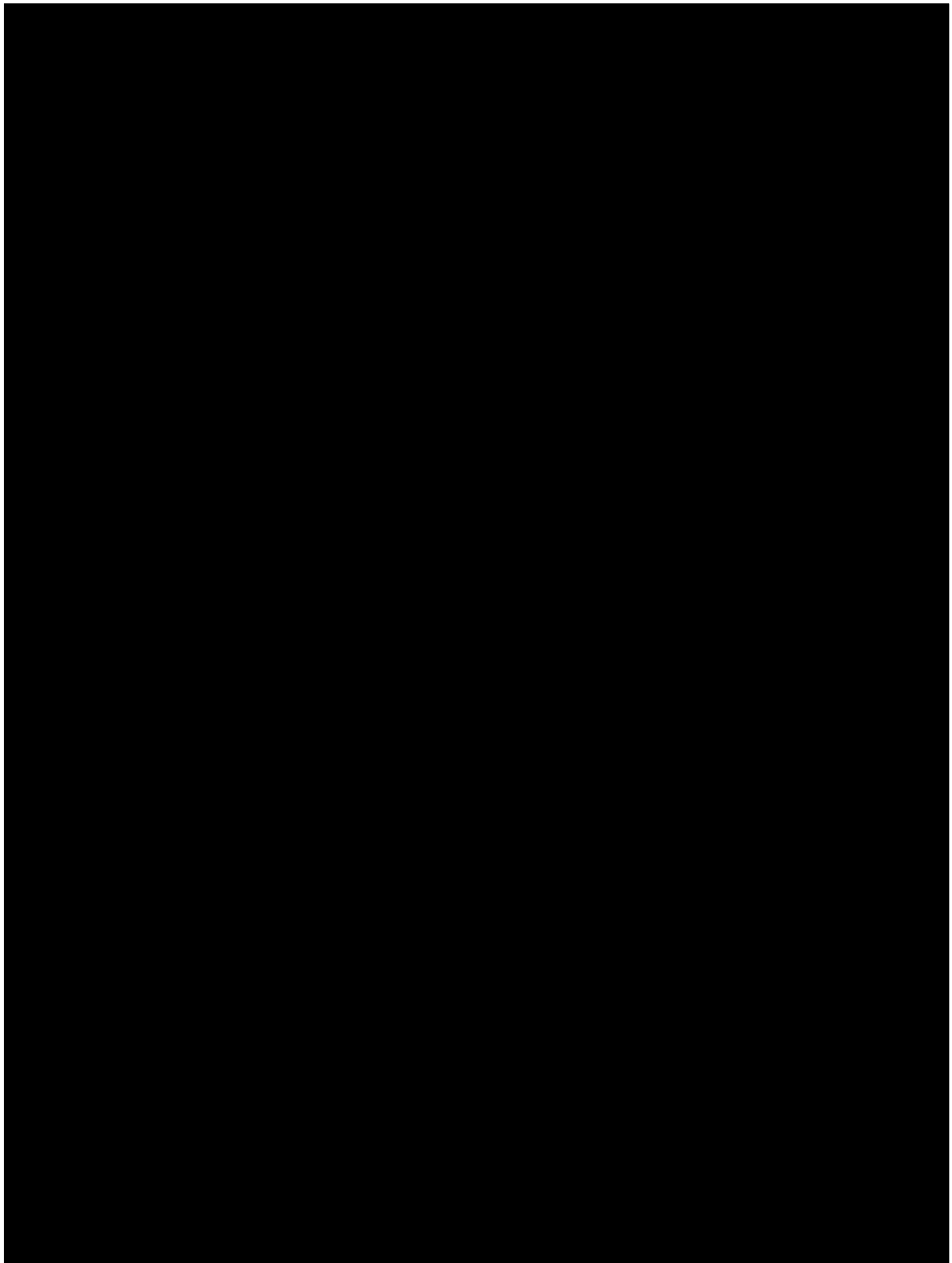


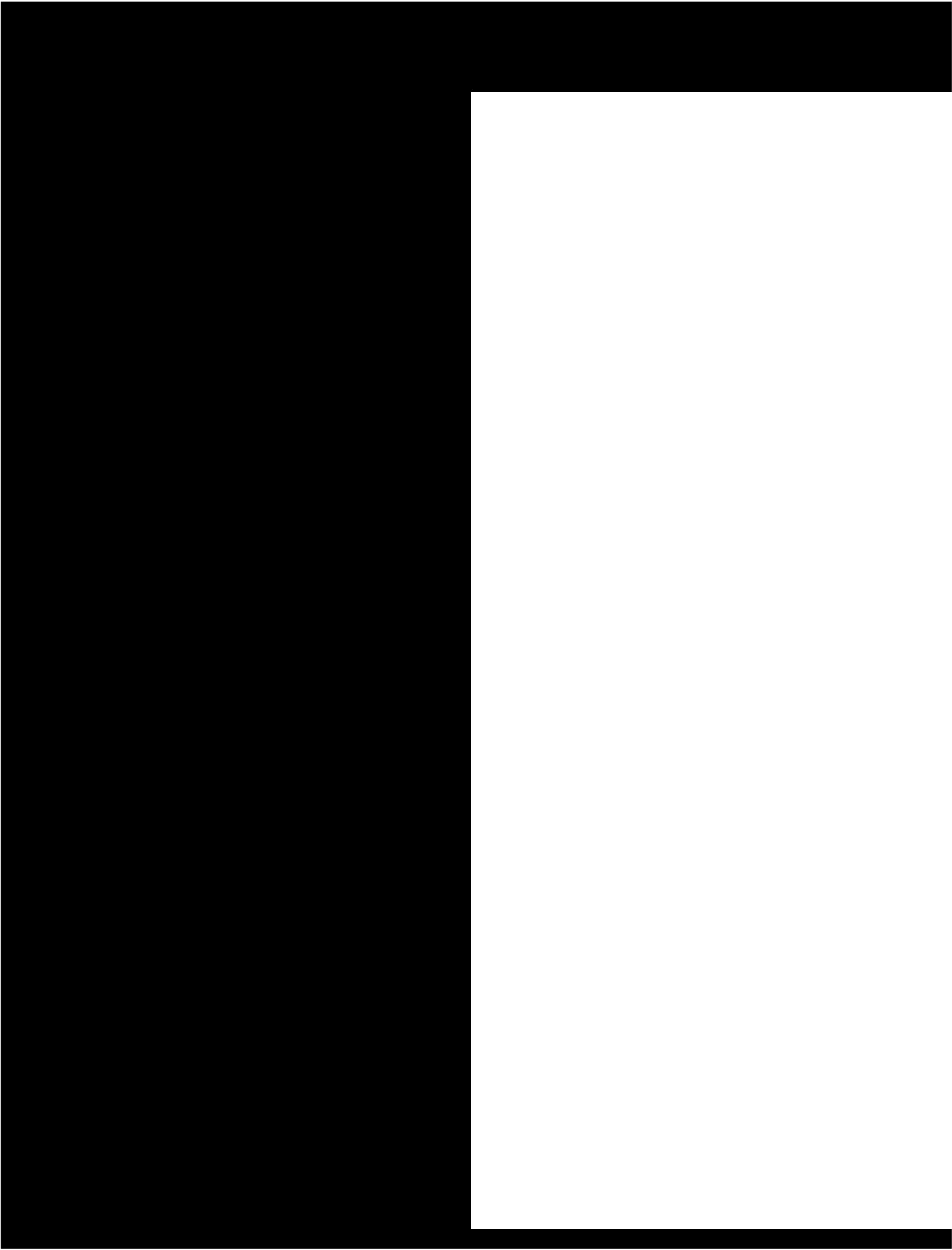


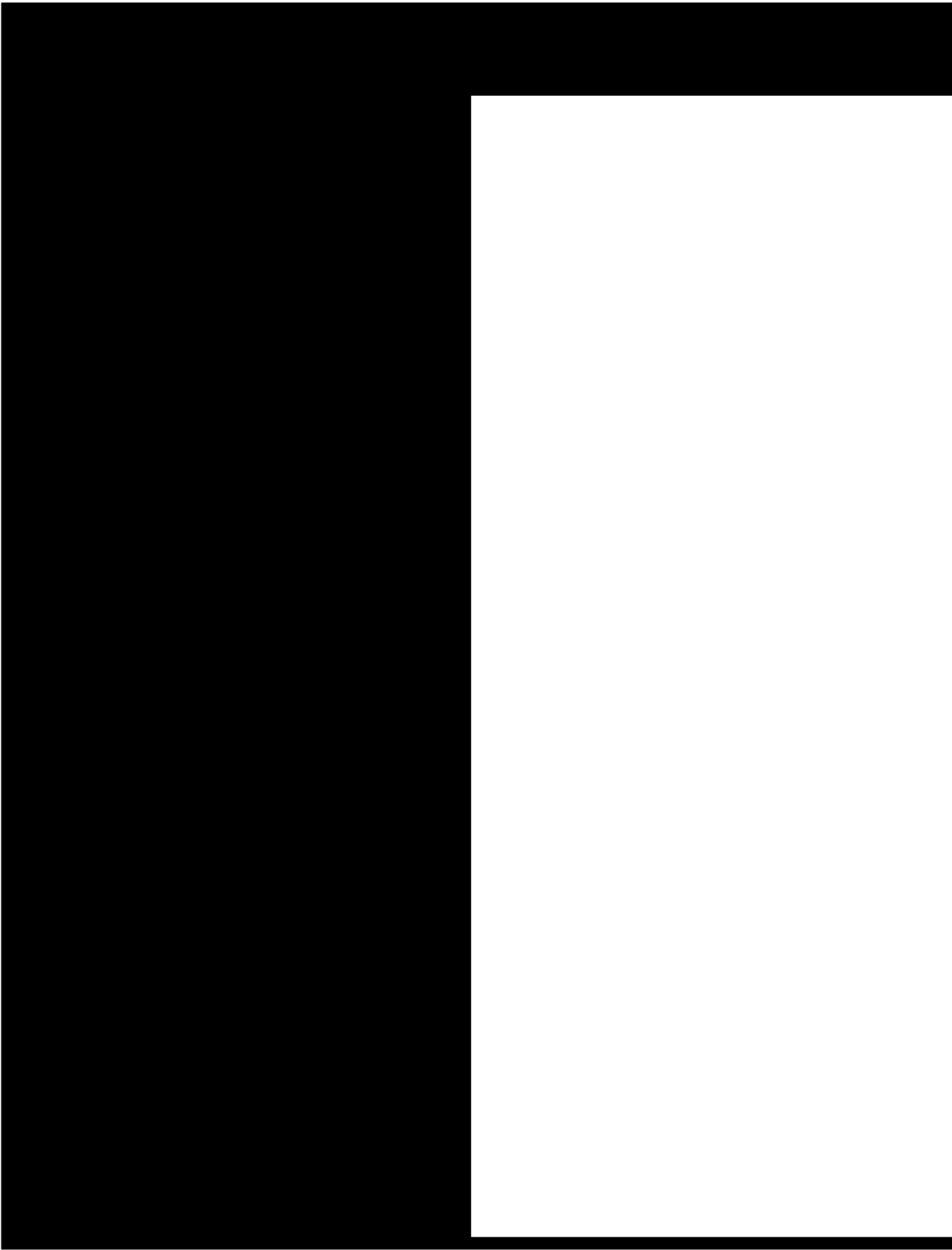


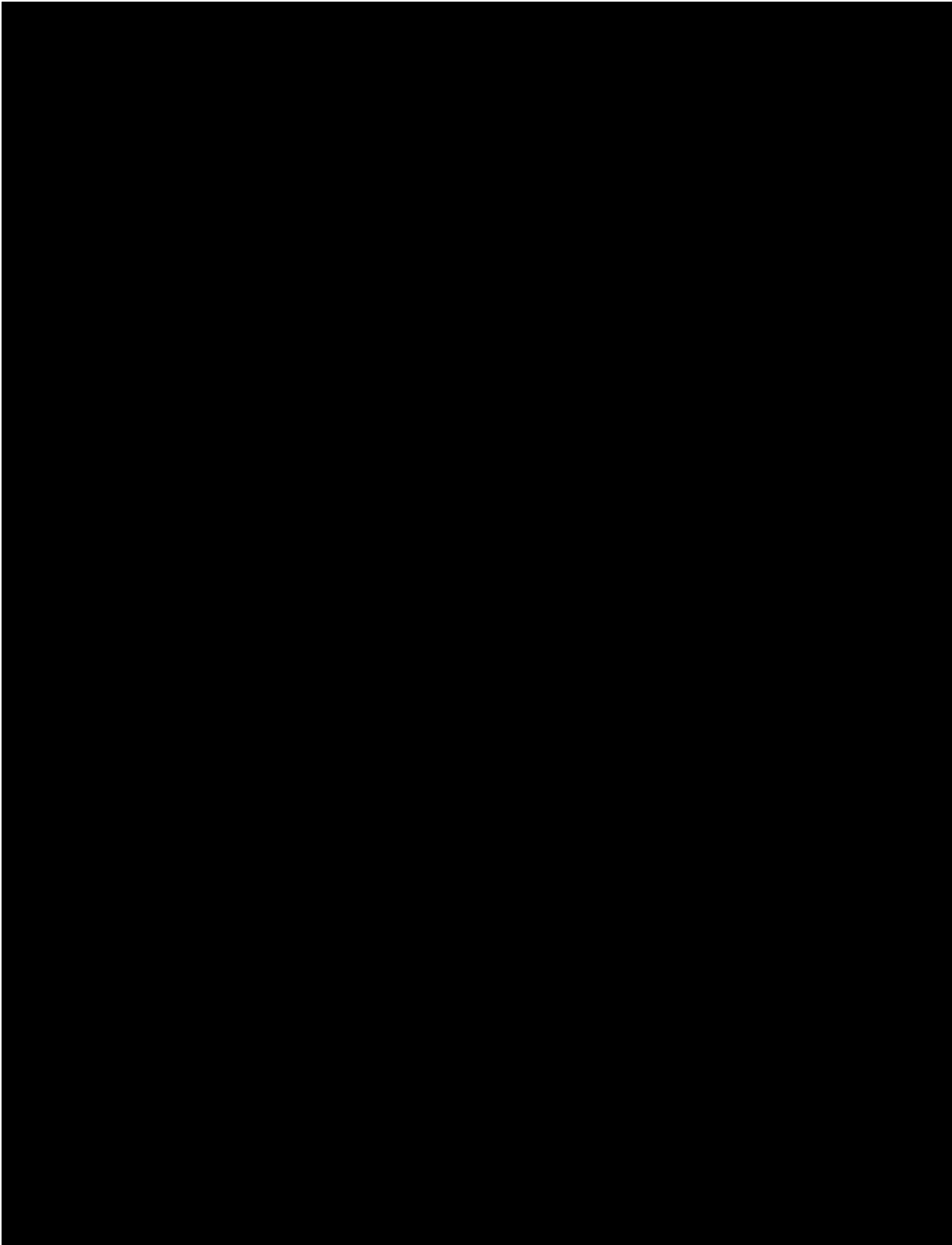


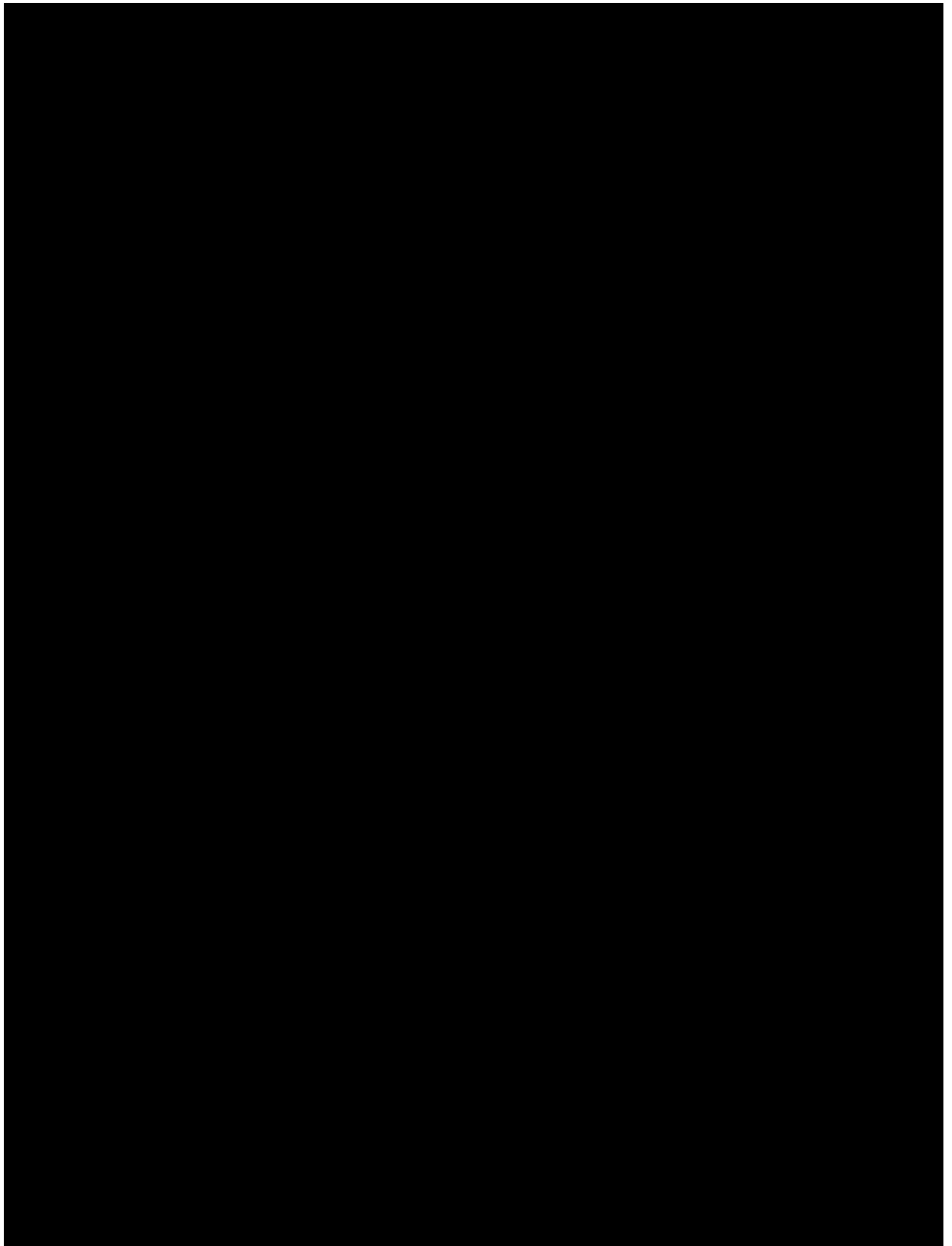


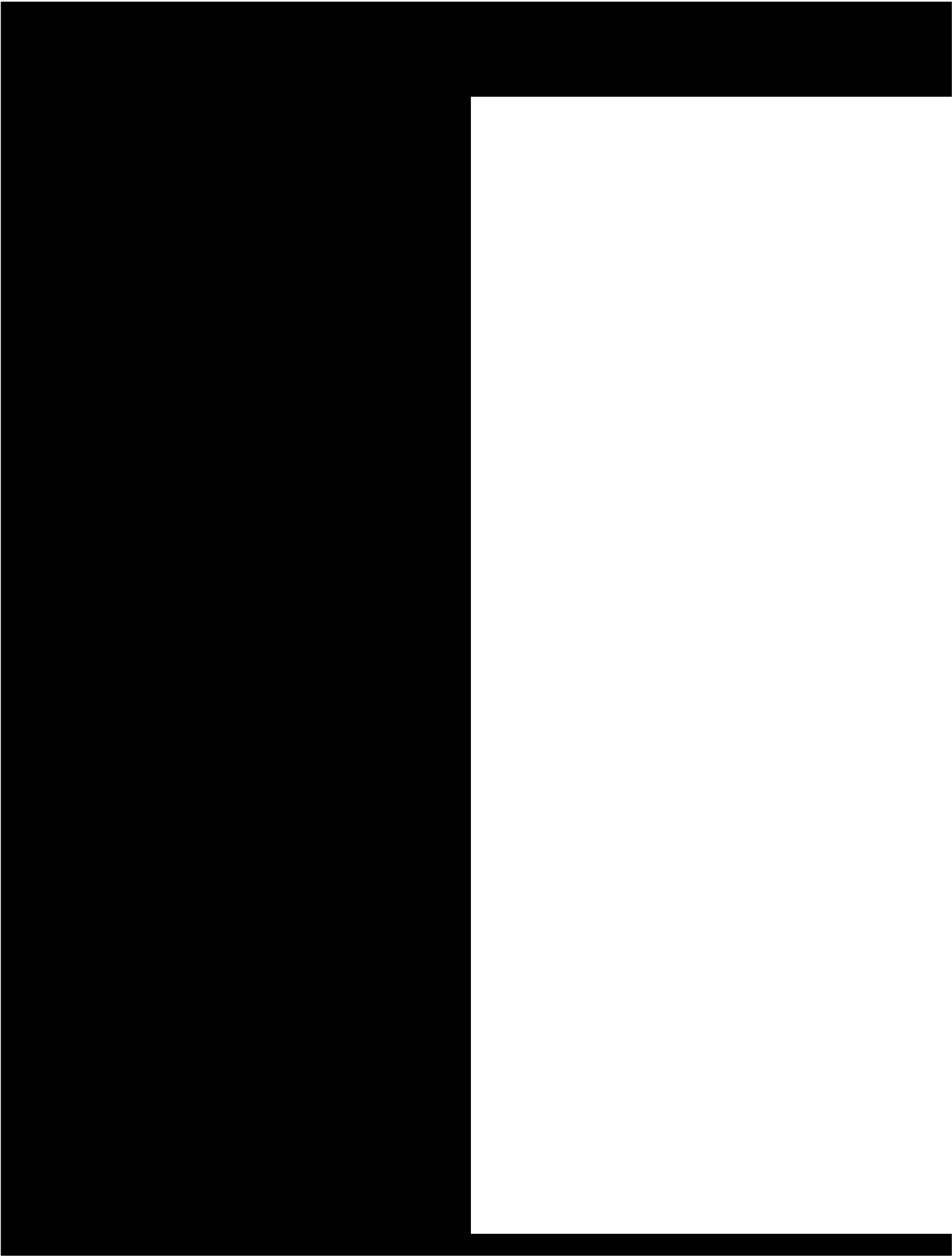


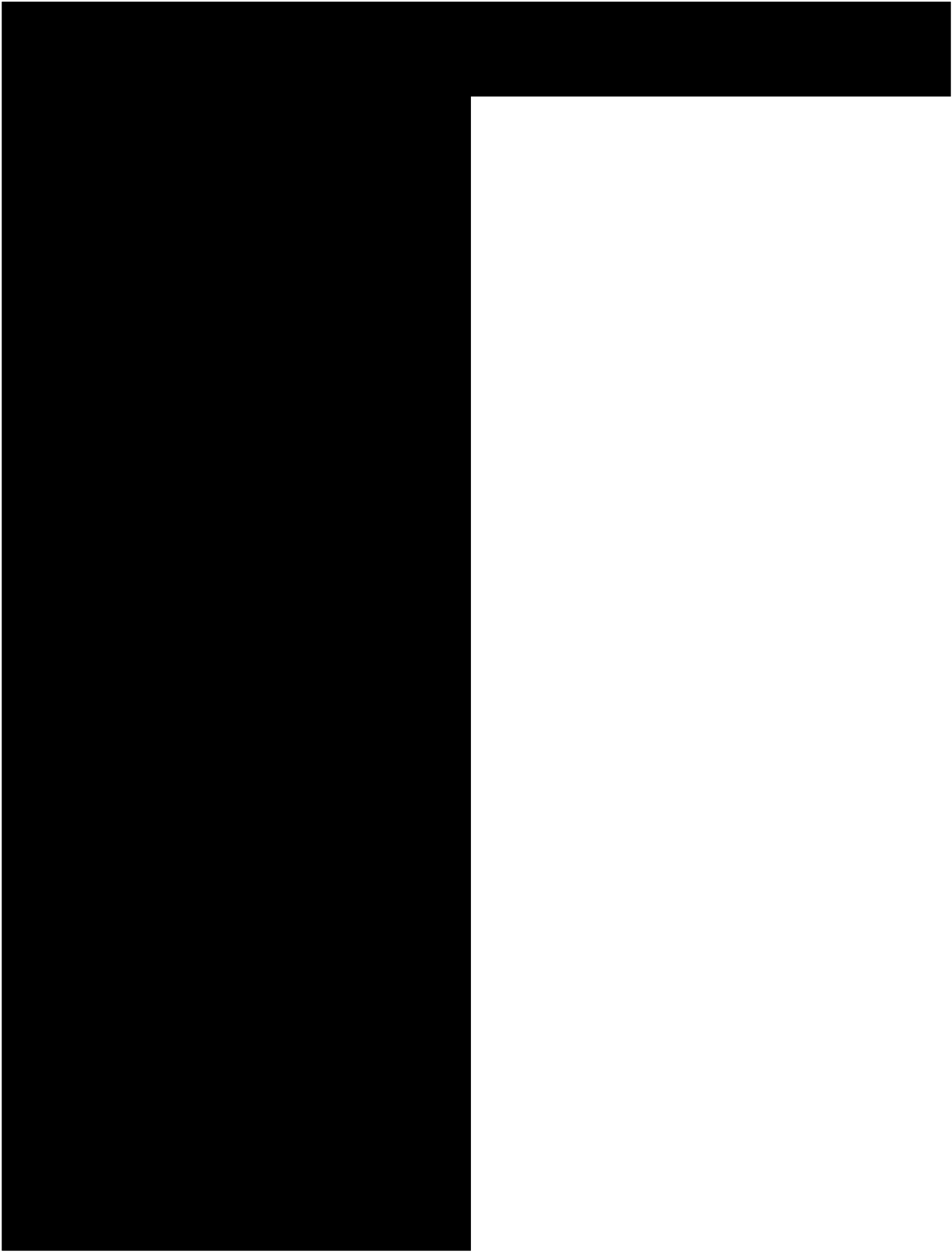


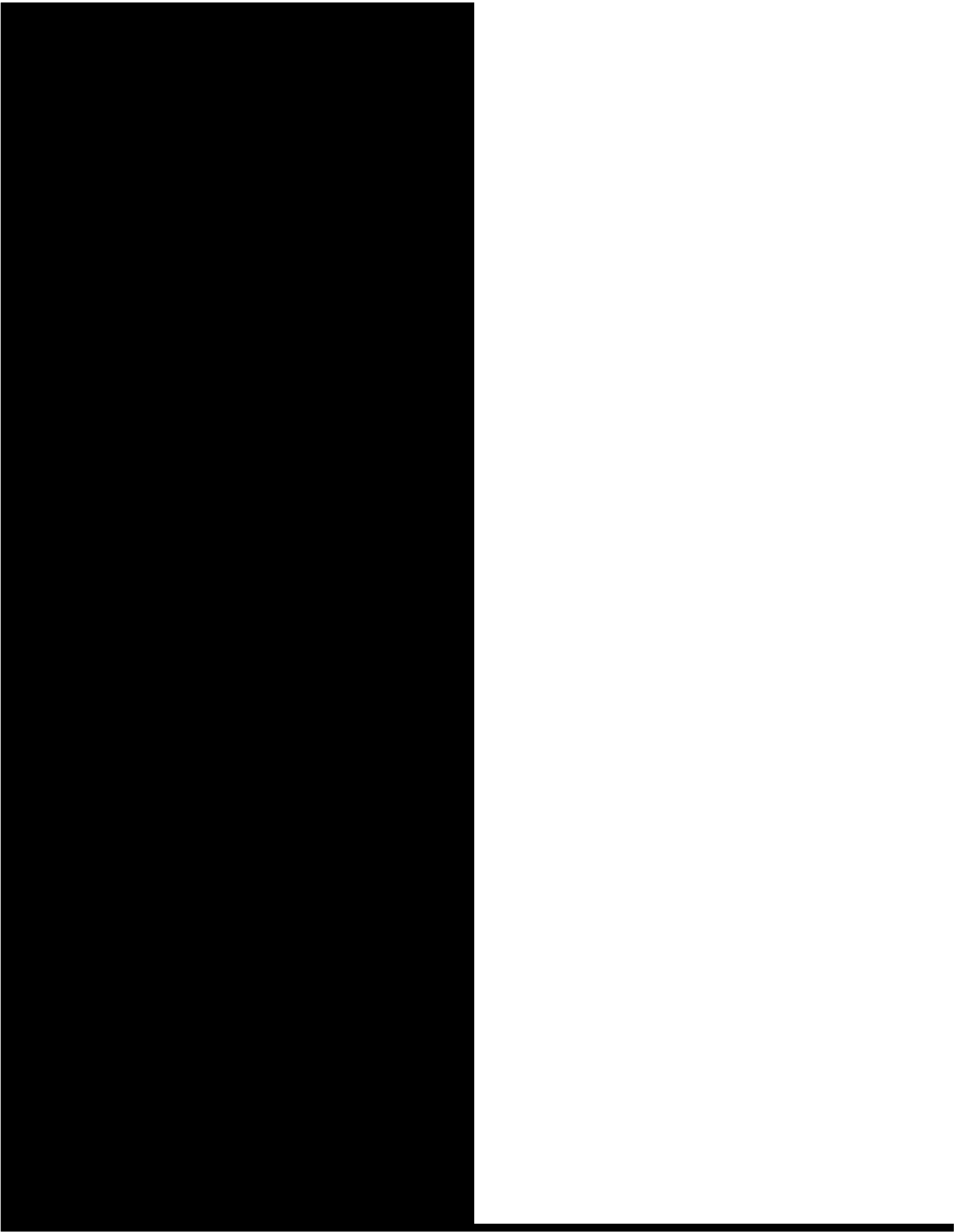


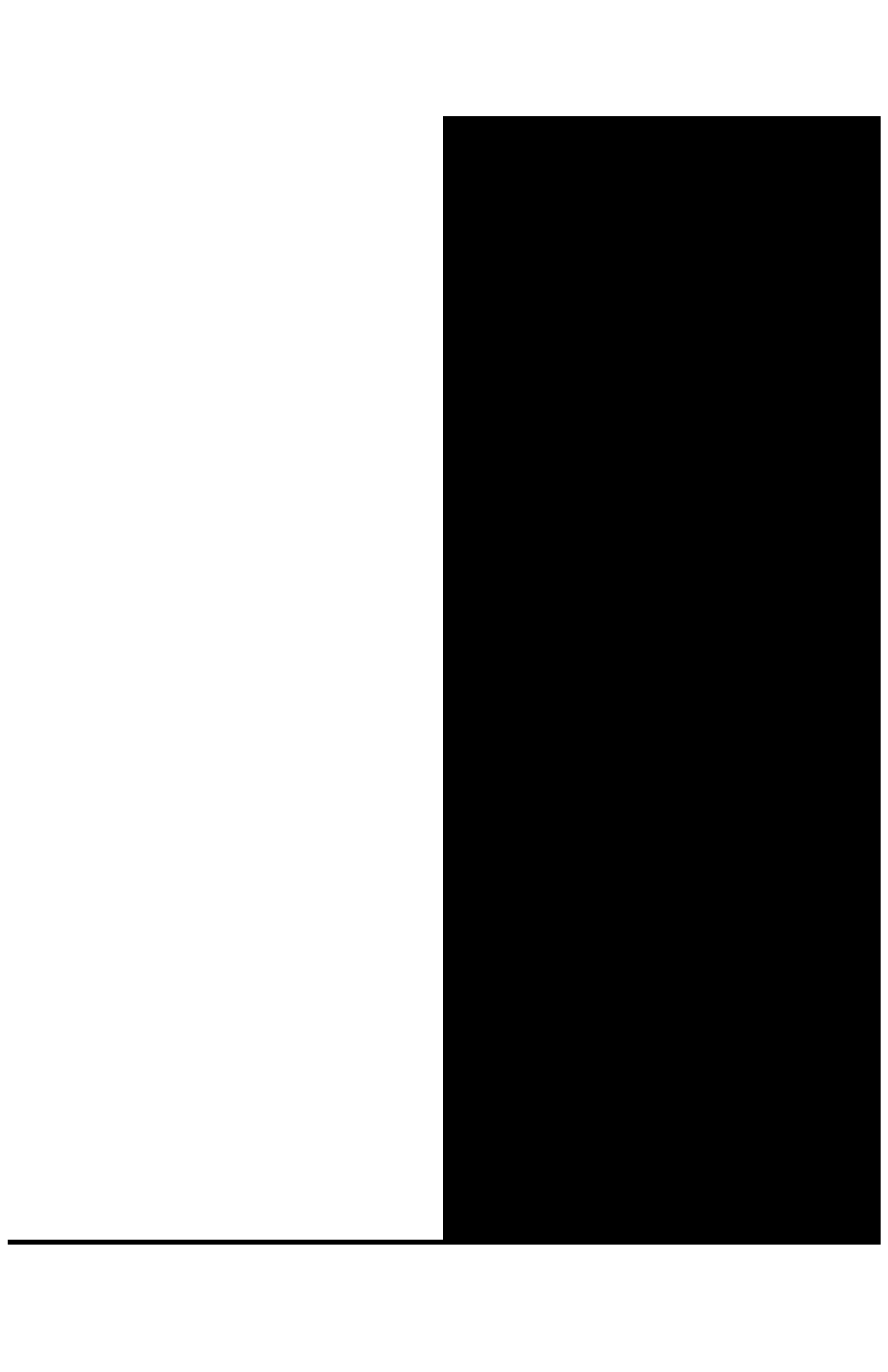


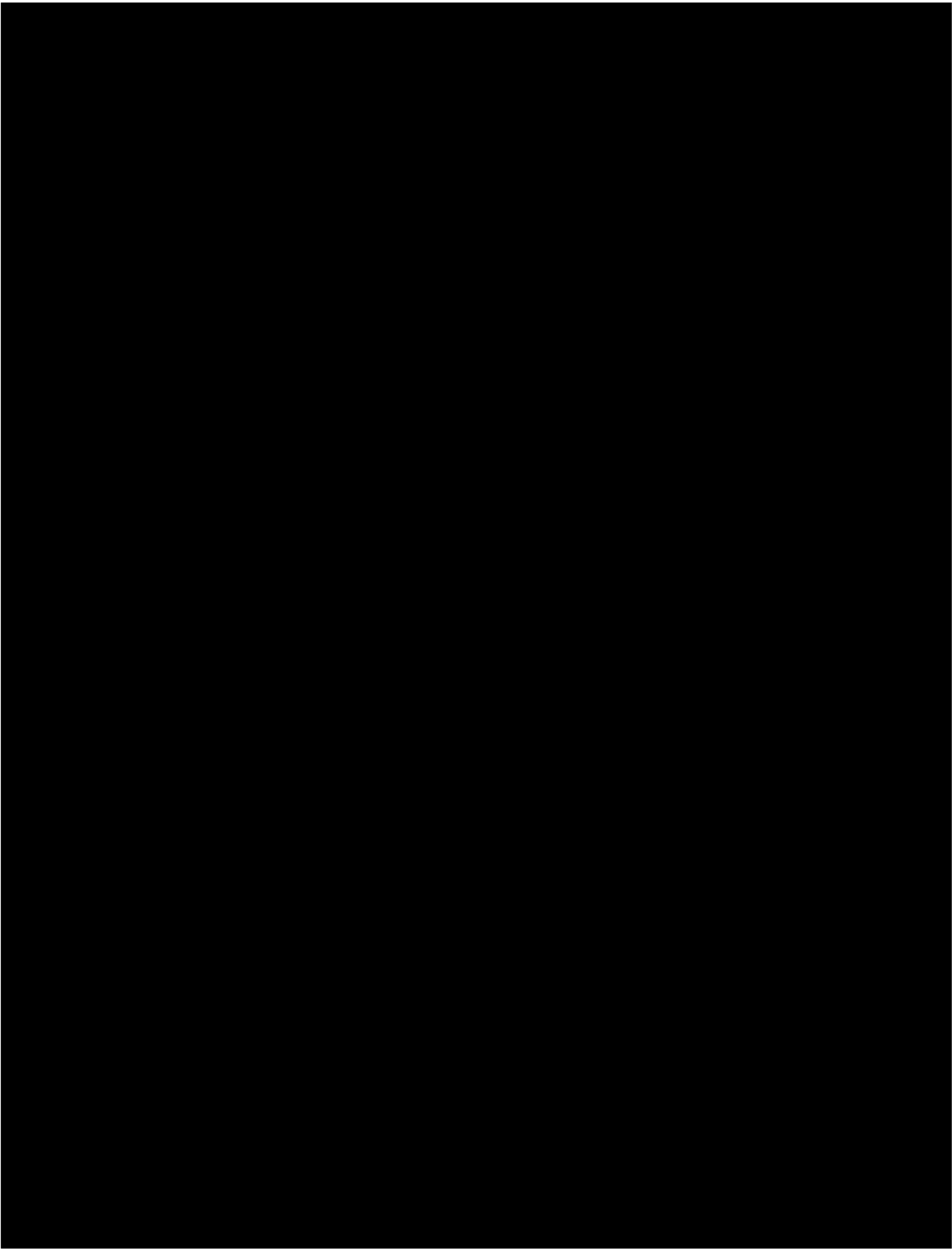


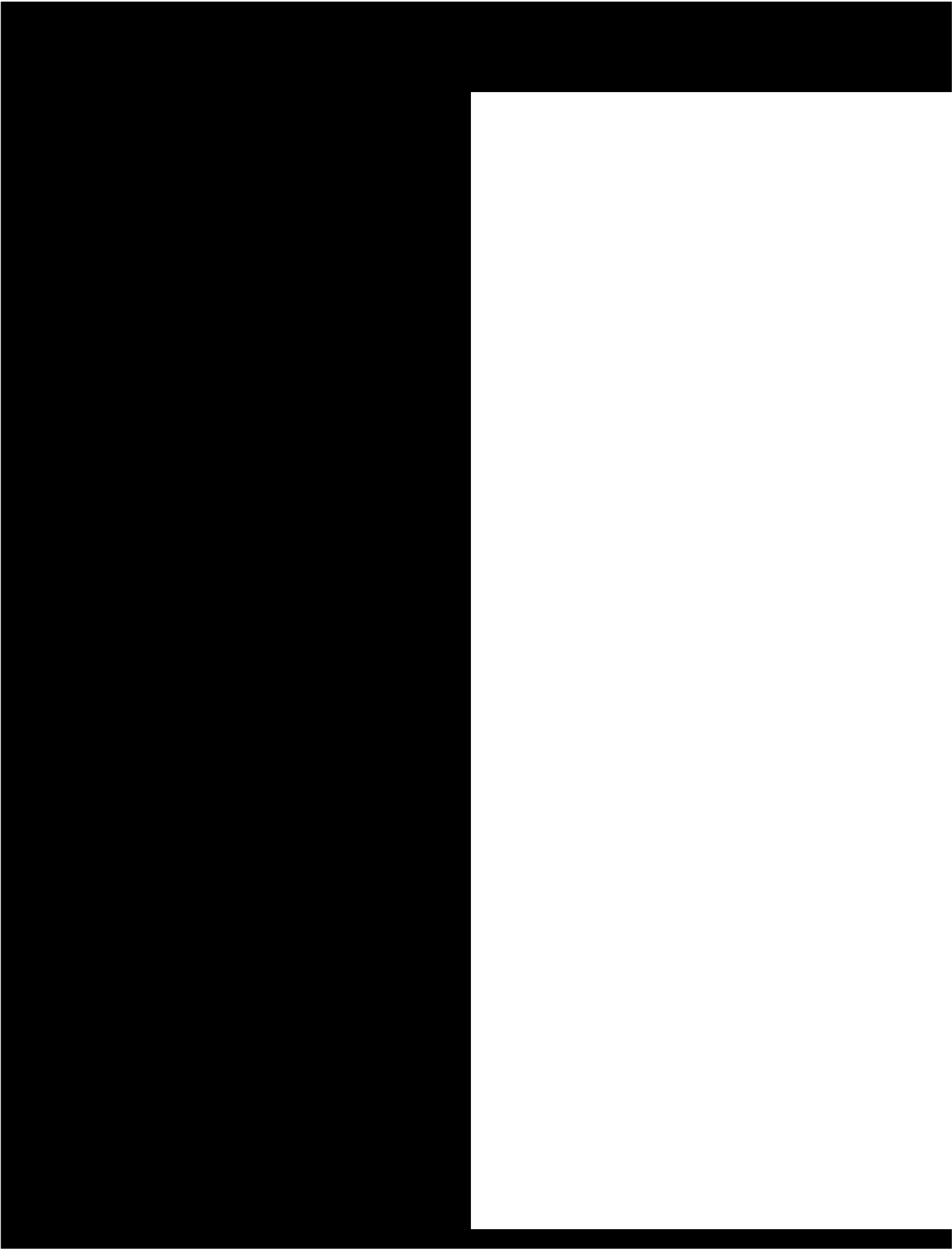




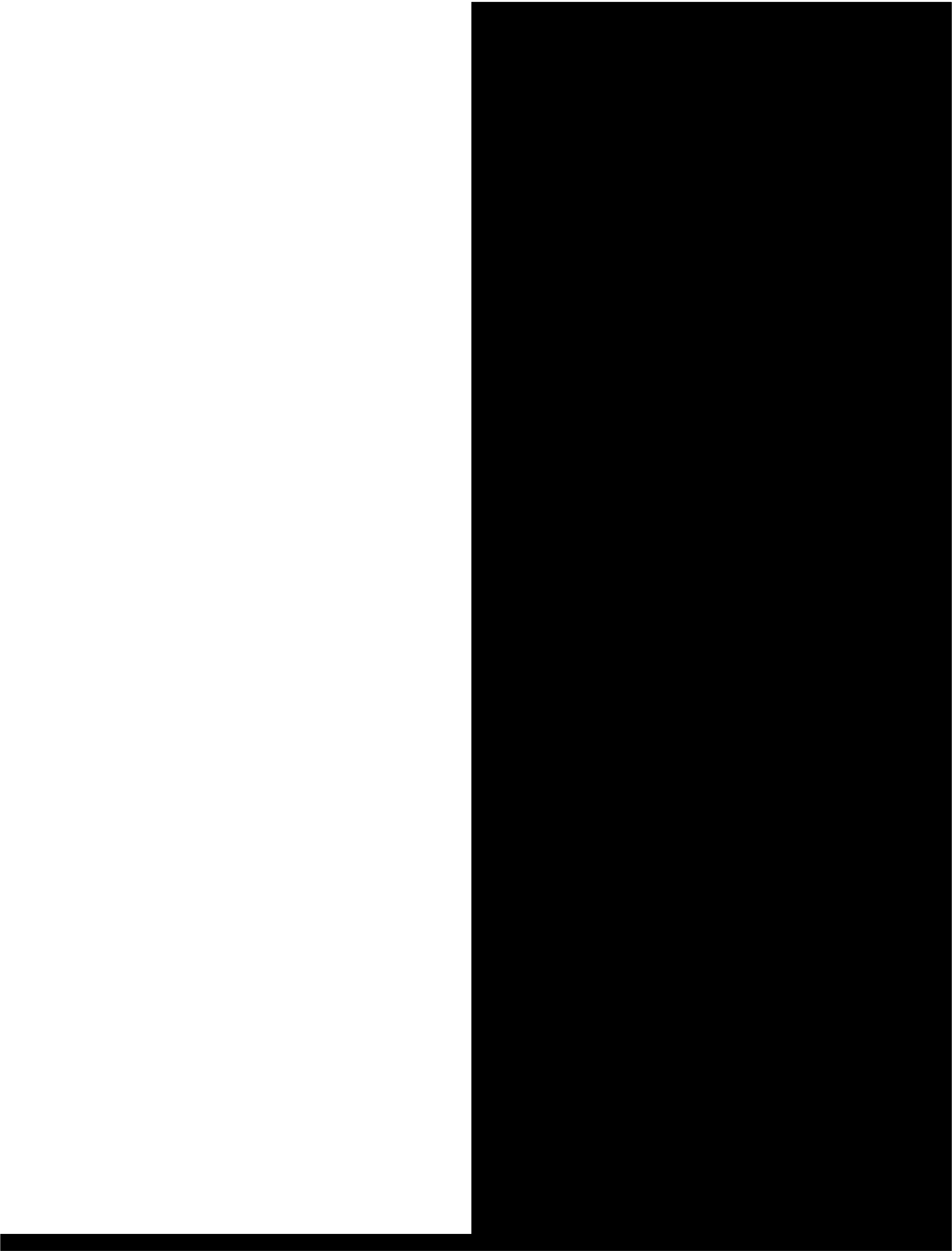


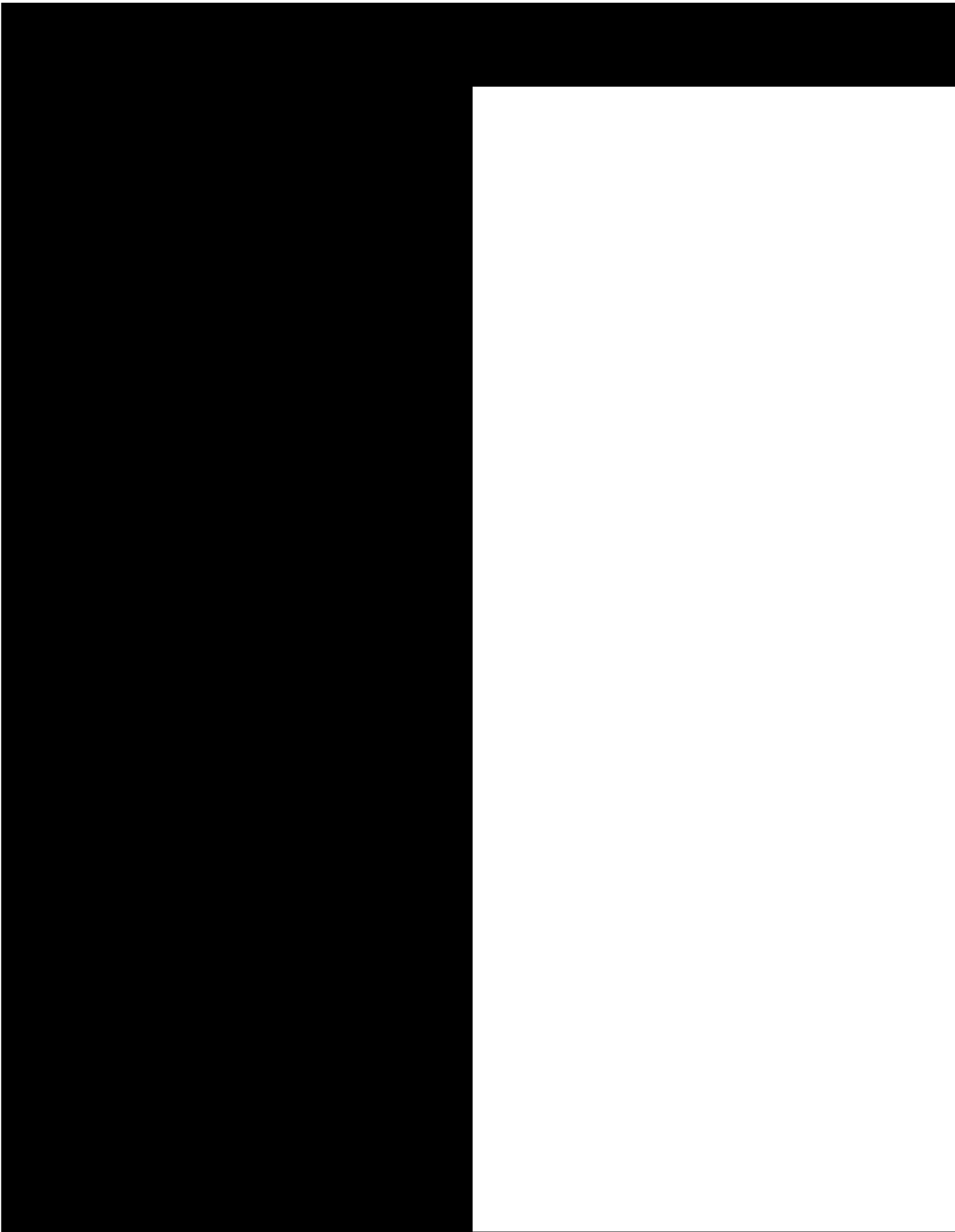


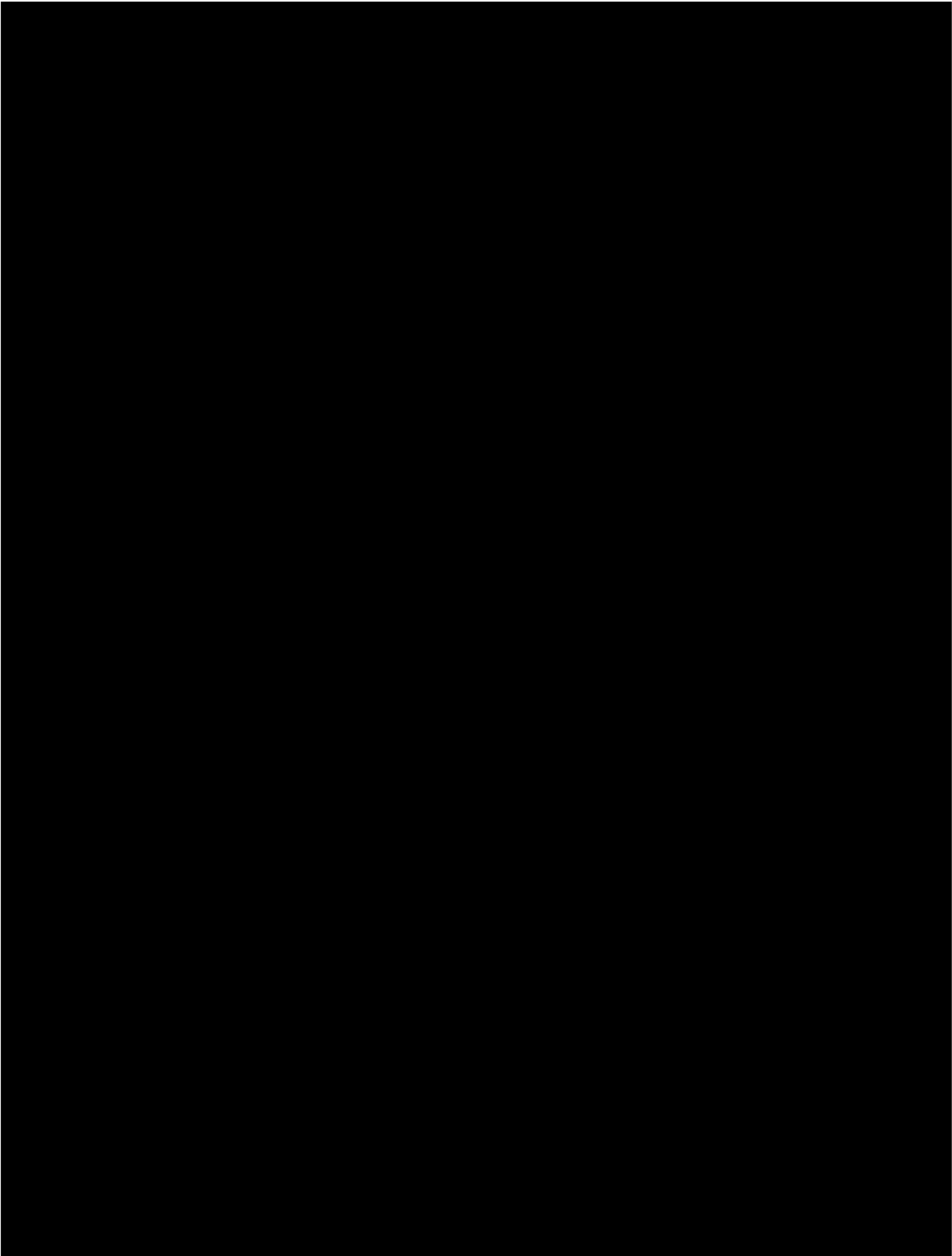


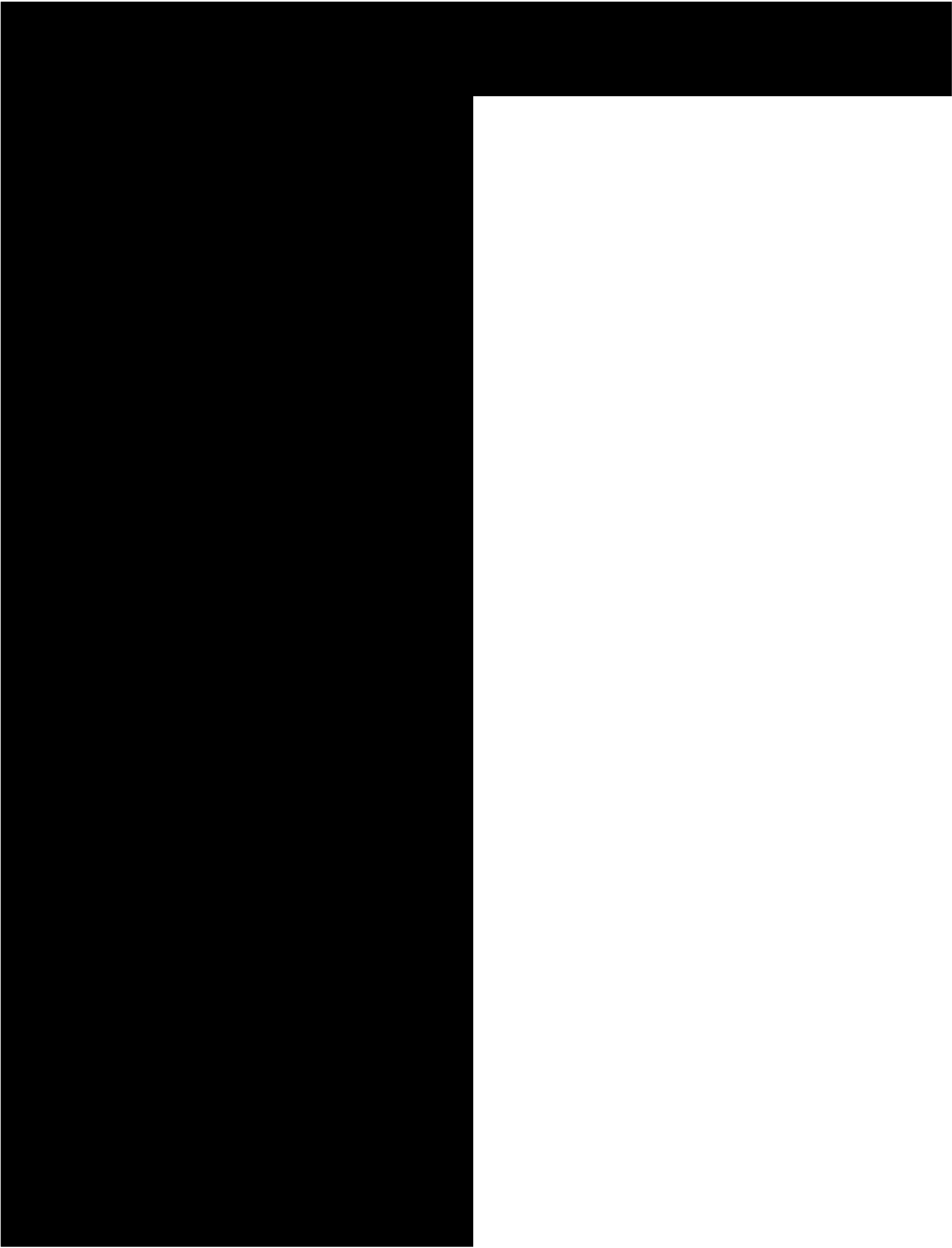


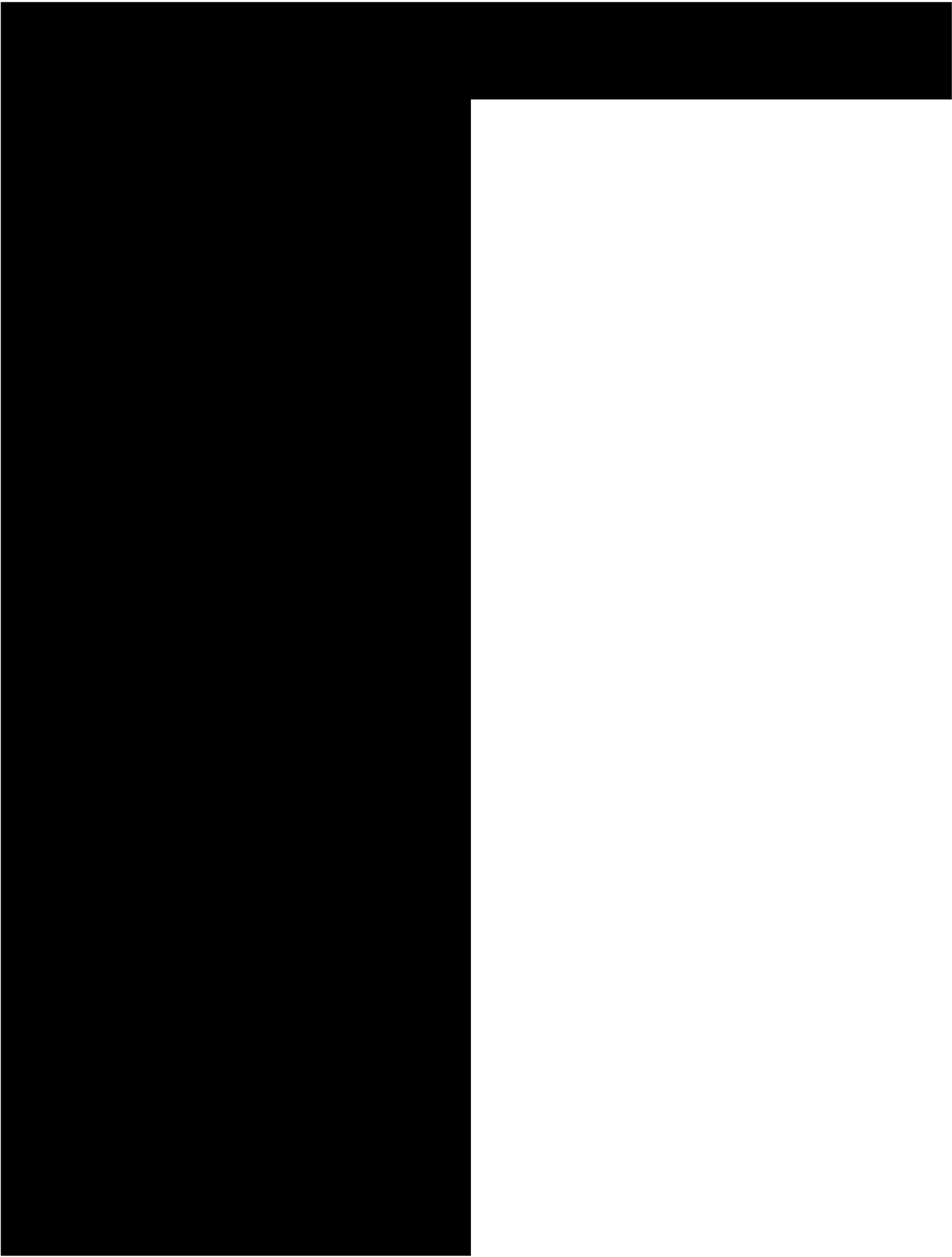


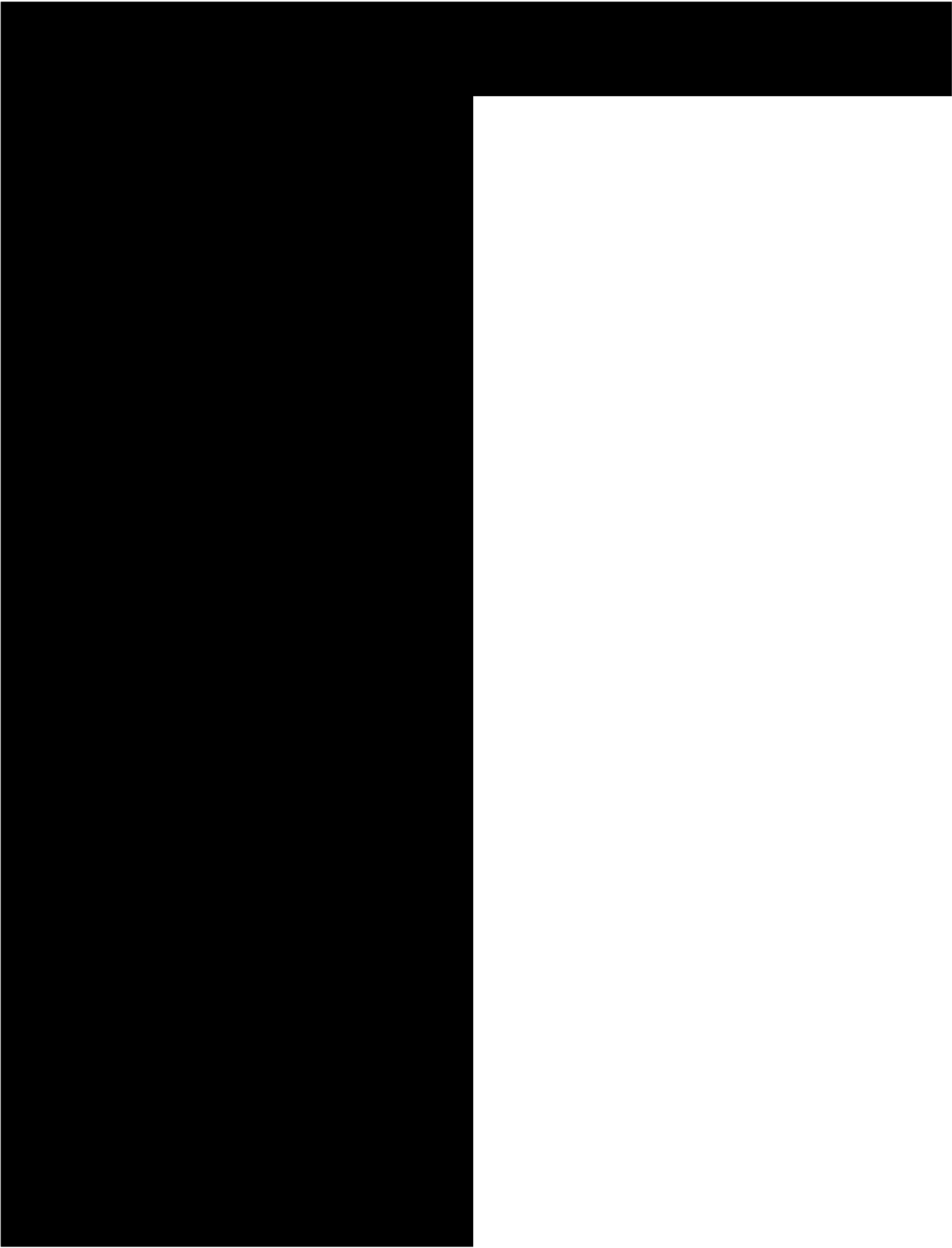














10.0 REFERENCE

Prentice, C.M. 1970. "Maximum Load" Casing Design. *J. Pet Tech* **22** (7): 805-811. SPE-2560-PA.