

Emergency Management Plan - Distribution Network



Part of the Energy Queensland Group

Emergency Management Plan - Distribution Network



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Version

Version	Date	Description	Reviewed By	Approved by
1.0	7/9/18	Development of Energy Qld Limited Distribution Emergency Management Plan incorporating both Ergon Energy Network and Energex Network plans		
1.0	21/9/18	Approved for Publishing		
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8.1	30/9/19	Updated general contents, amended structure diagram, and amended checklists following 2018-19 season		
8.1		Approved for Publishing		
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10.0	30/9/21	Updated general content, include level 2 structures and references, changes to reflect new corporate systems and amended Quick Response Guides		
11.0	30/9/22	Updated general content, quick response guides		
12.0	30/9/23	Updated general content, ECELT/CMT, Executive naming, key contacts		

ABOUT ERGON ENERGY NETWORK

Ergon Energy Network Corporation Limited (Ergon Energy Network) is part of the Energy Queensland (EQL) Group and manages an electricity distribution network supplying electricity to more than 746,000 customers. The vast operating area covers over one million square kilometres – around 97% of the state of Queensland – from the coastal and rural population centres to the remote communities of the Torres Strait.

The electricity network consists of approximately 160,000 kilometres of powerlines and one million power poles, along with associated infrastructure such as major substations and power transformers.

Ergon Energy Network also own and operate 33 stand-alone power stations that provide supply to isolated communities across Queensland which are not connected to the main electricity grid.

ABOUT ENERGEX NETWORK

Energex Limited (Energex) is part of the EQL Group and manages an electricity distribution network delivering services to the South-East Queensland region across an area of 25,000 square kilometres.

The area extends from the NSW border in the south to Gympie in the north. This includes the areas of Brisbane, Gold and Sunshine Coasts, Ipswich, Redlands, Logan, and Moreton Bay.

Energex provide distribution services to over 1.4 million domestic and business connections delivering electricity to a population base of around 3.4 million people via 54,000km of overhead and underground network 288 substations and 50,000 distribution transformers.

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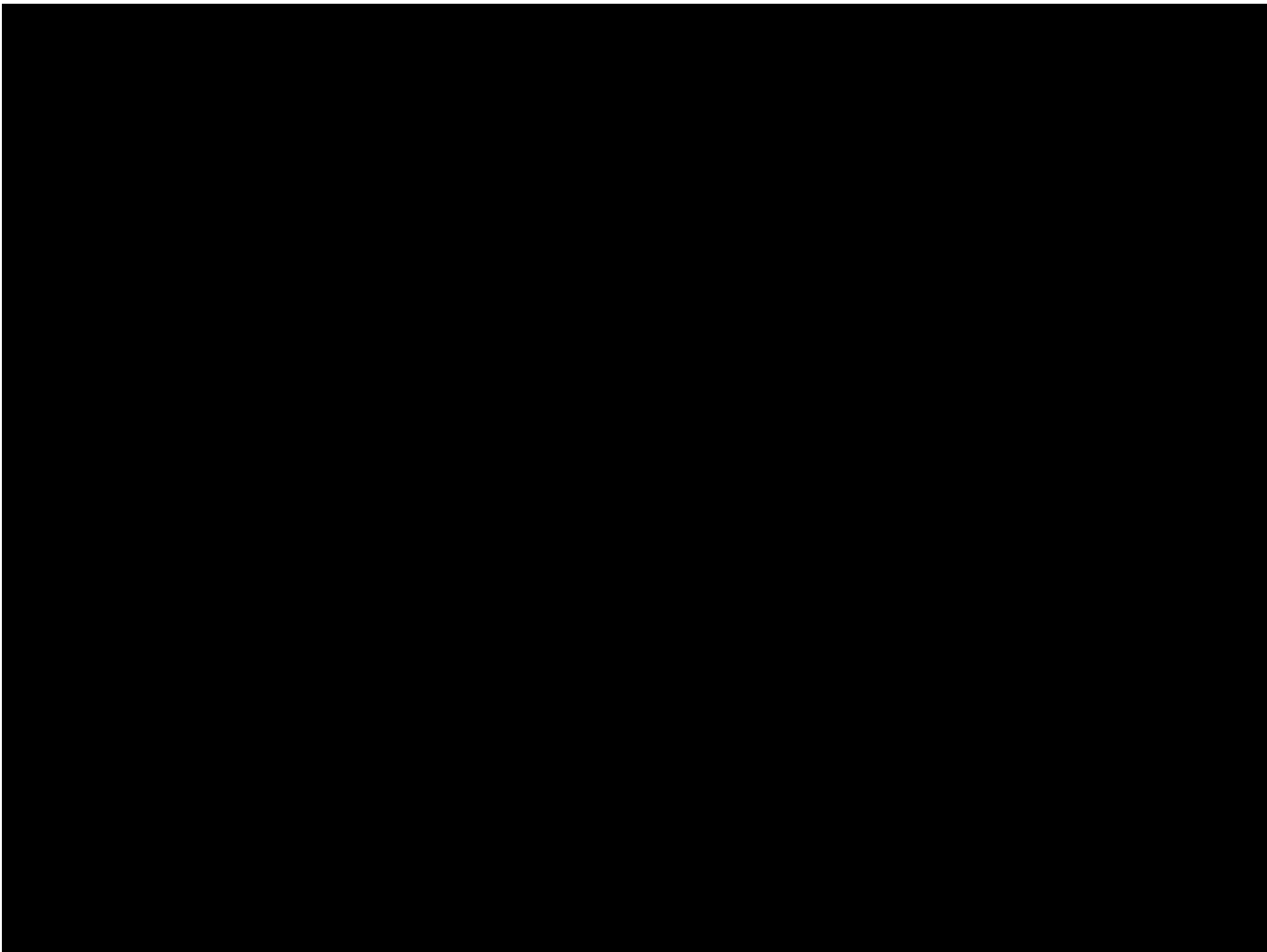
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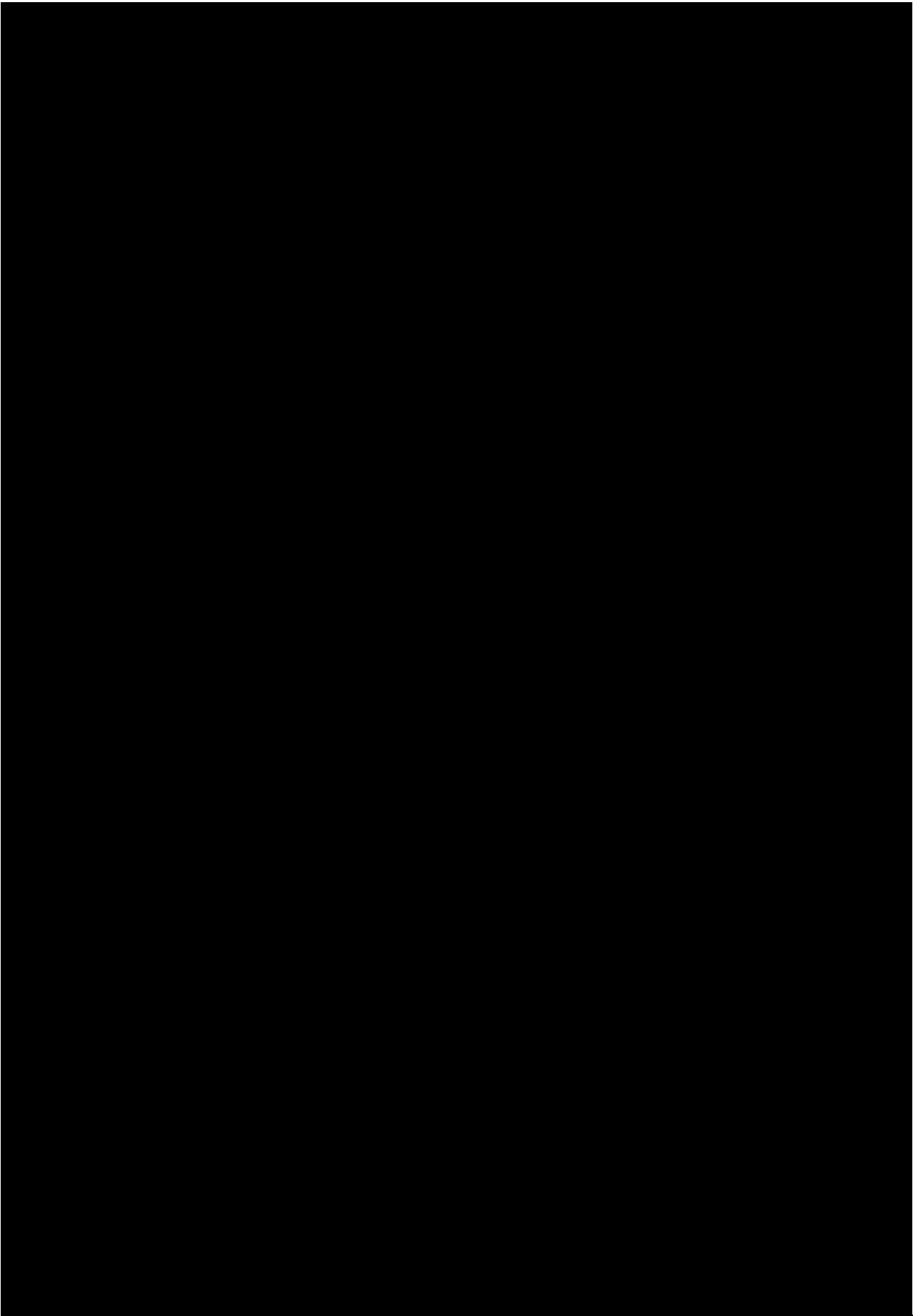
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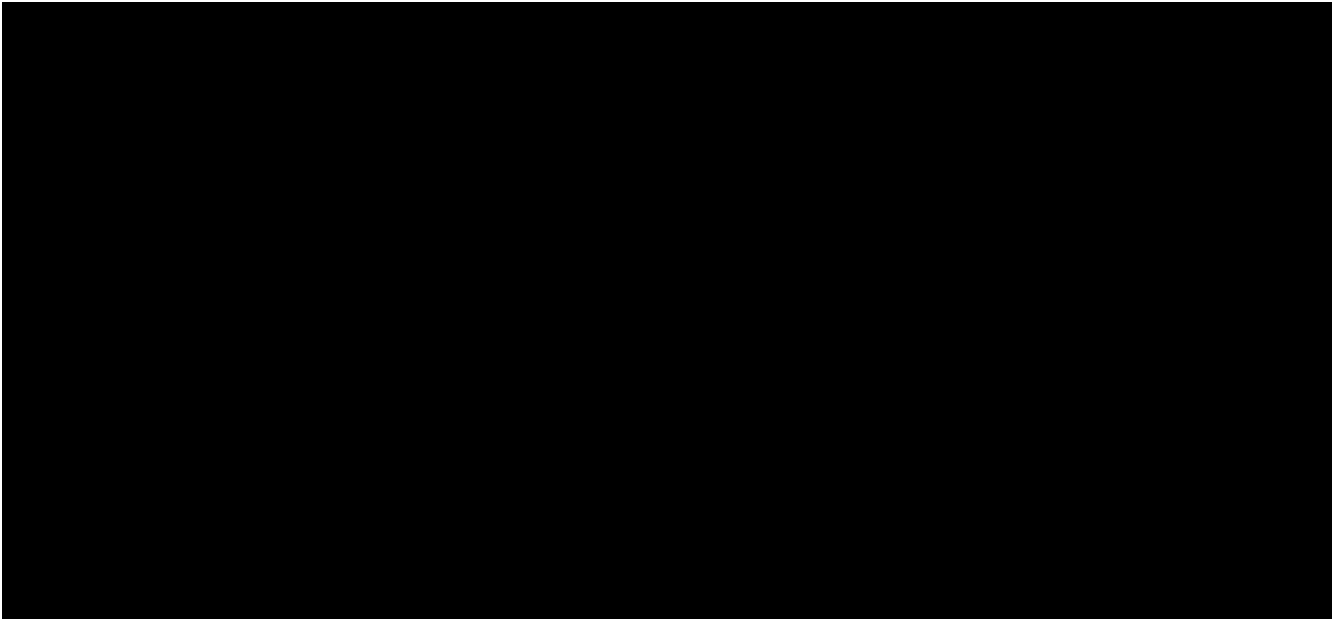
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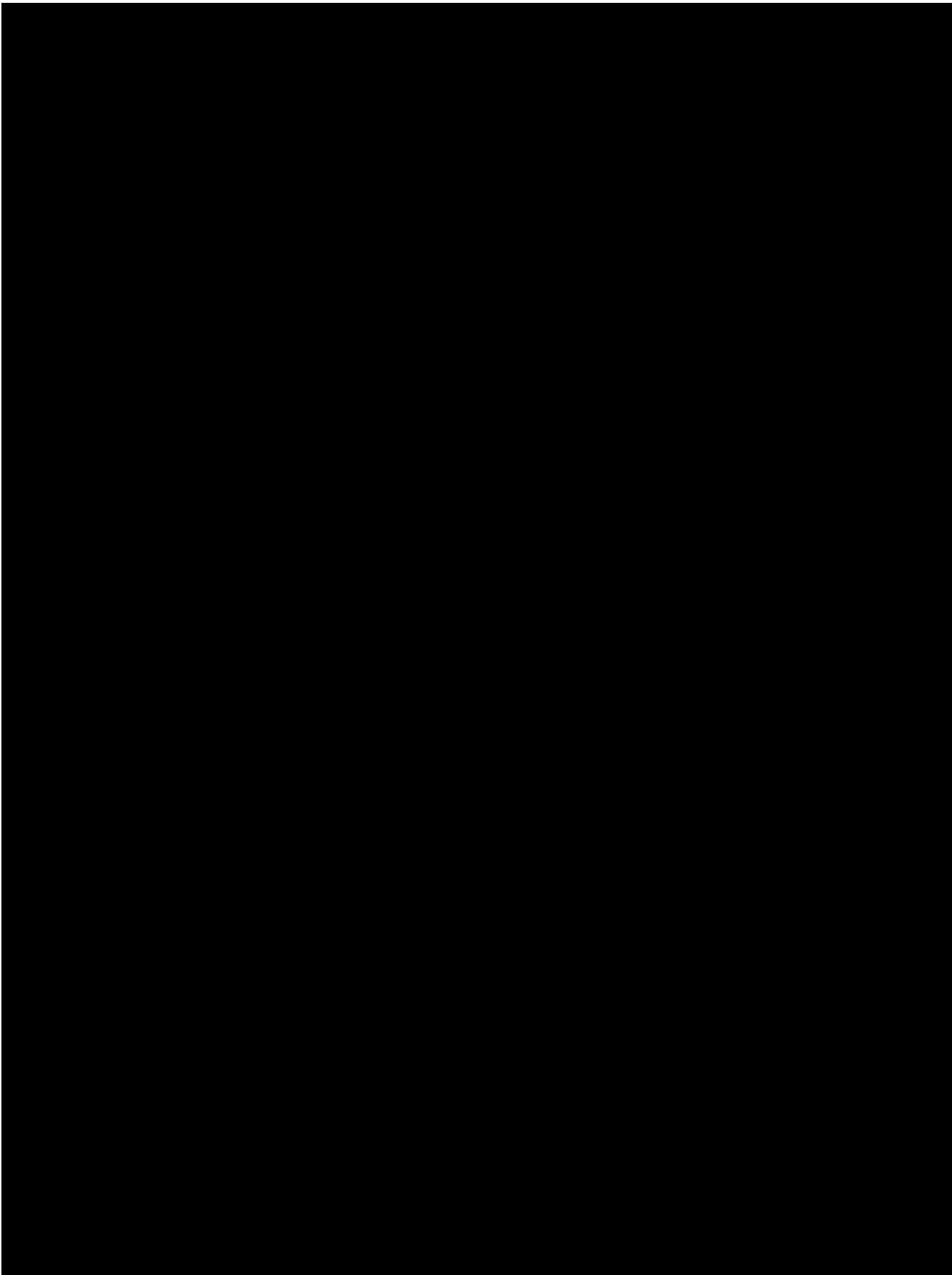
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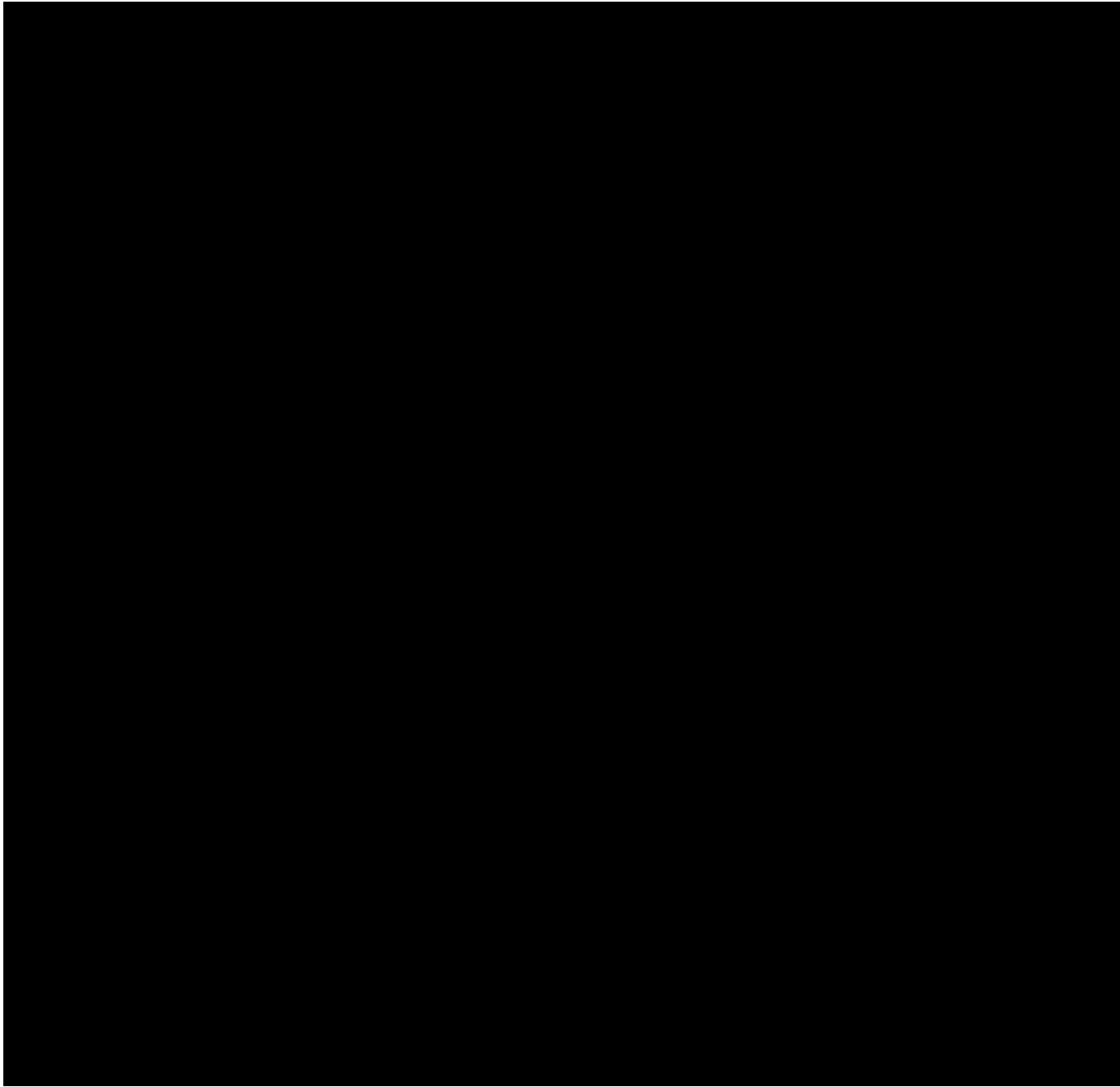
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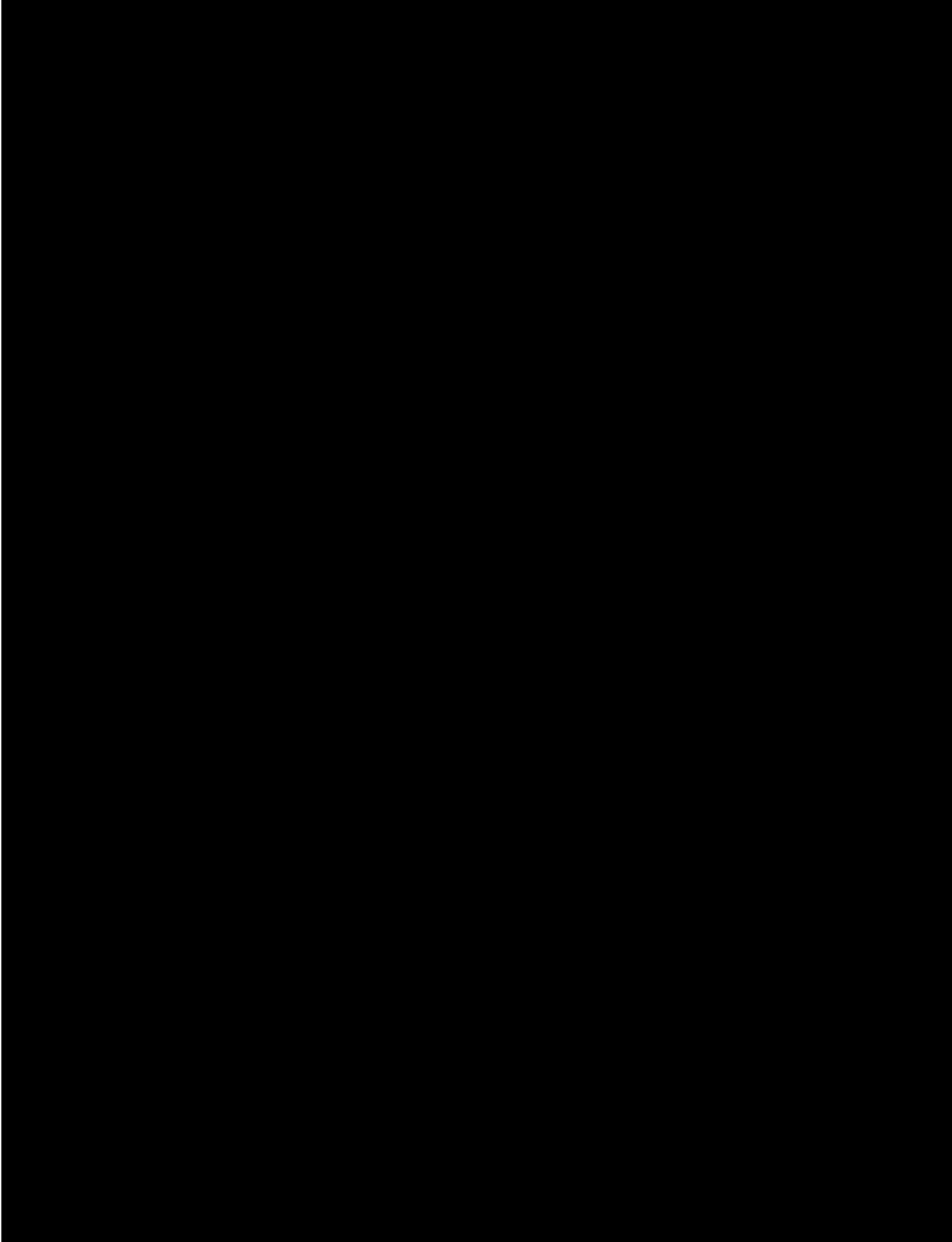
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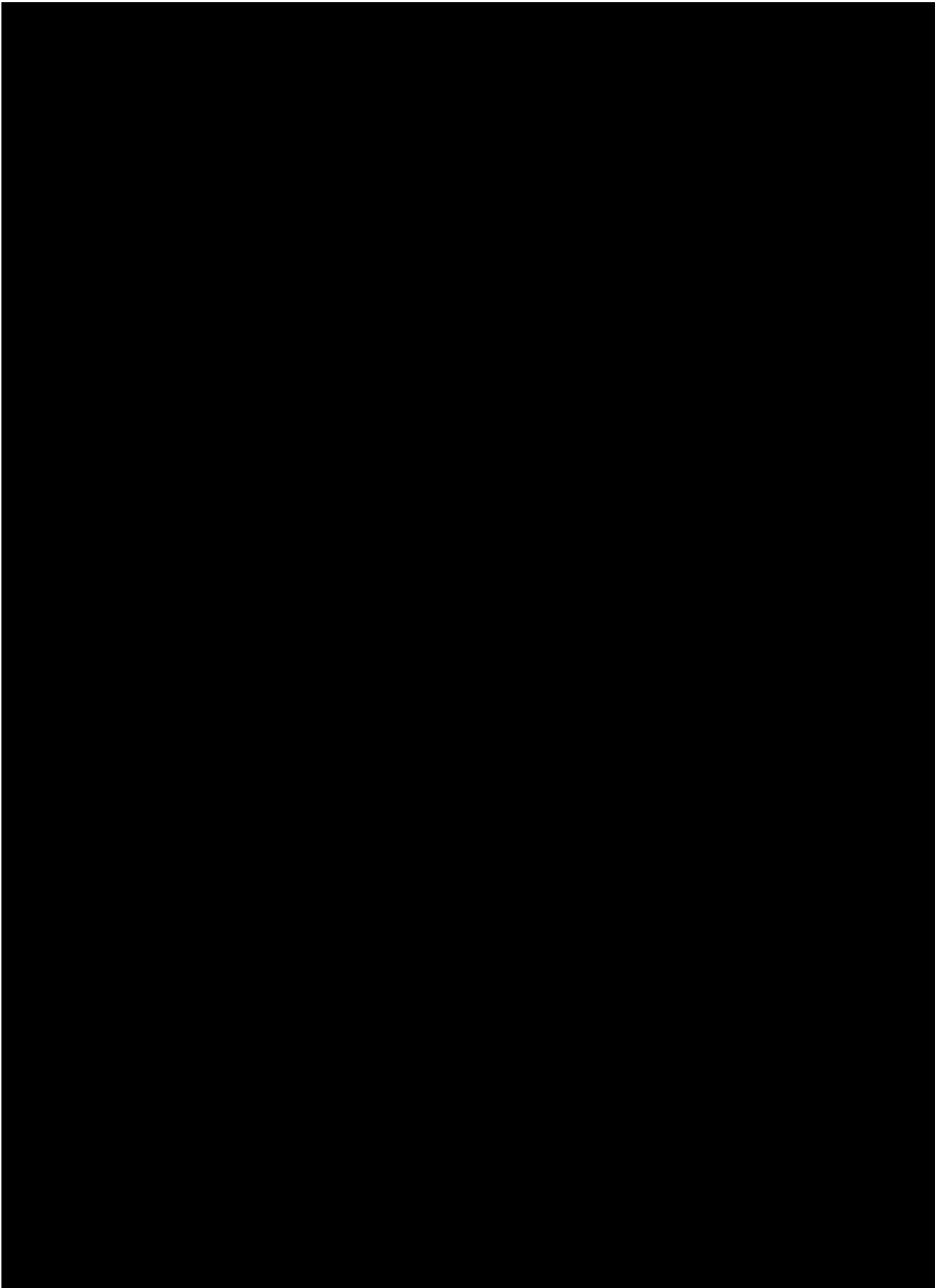
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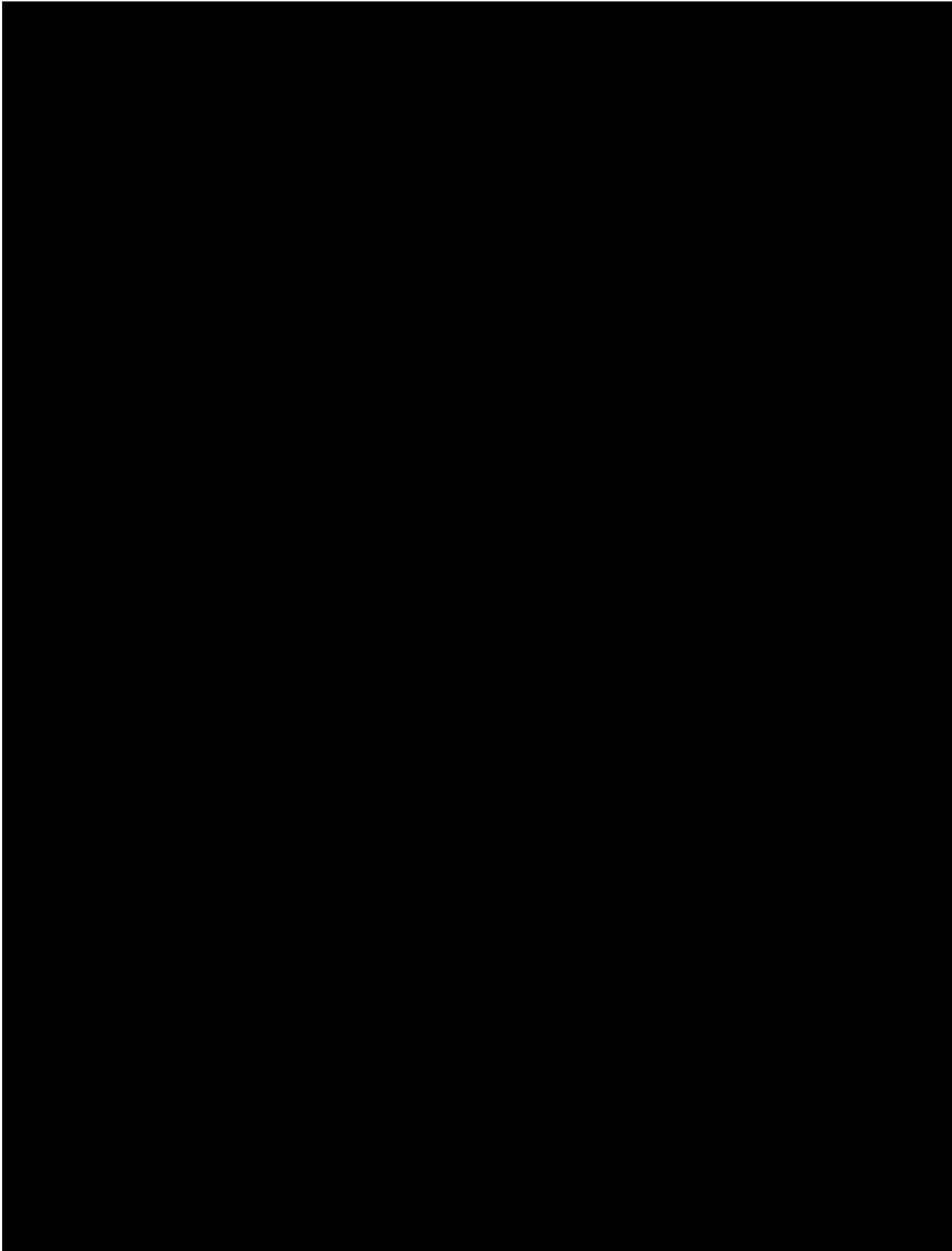
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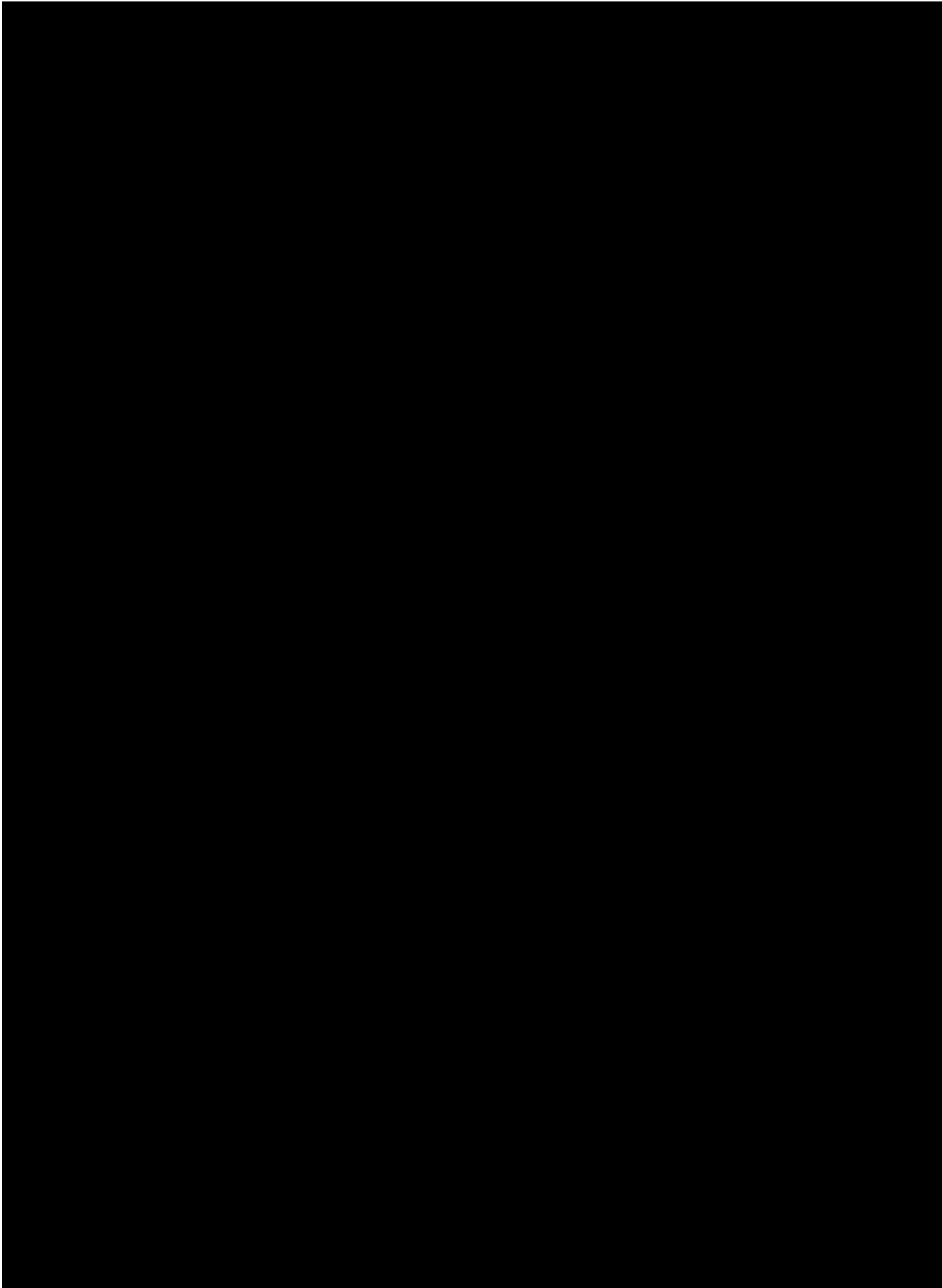
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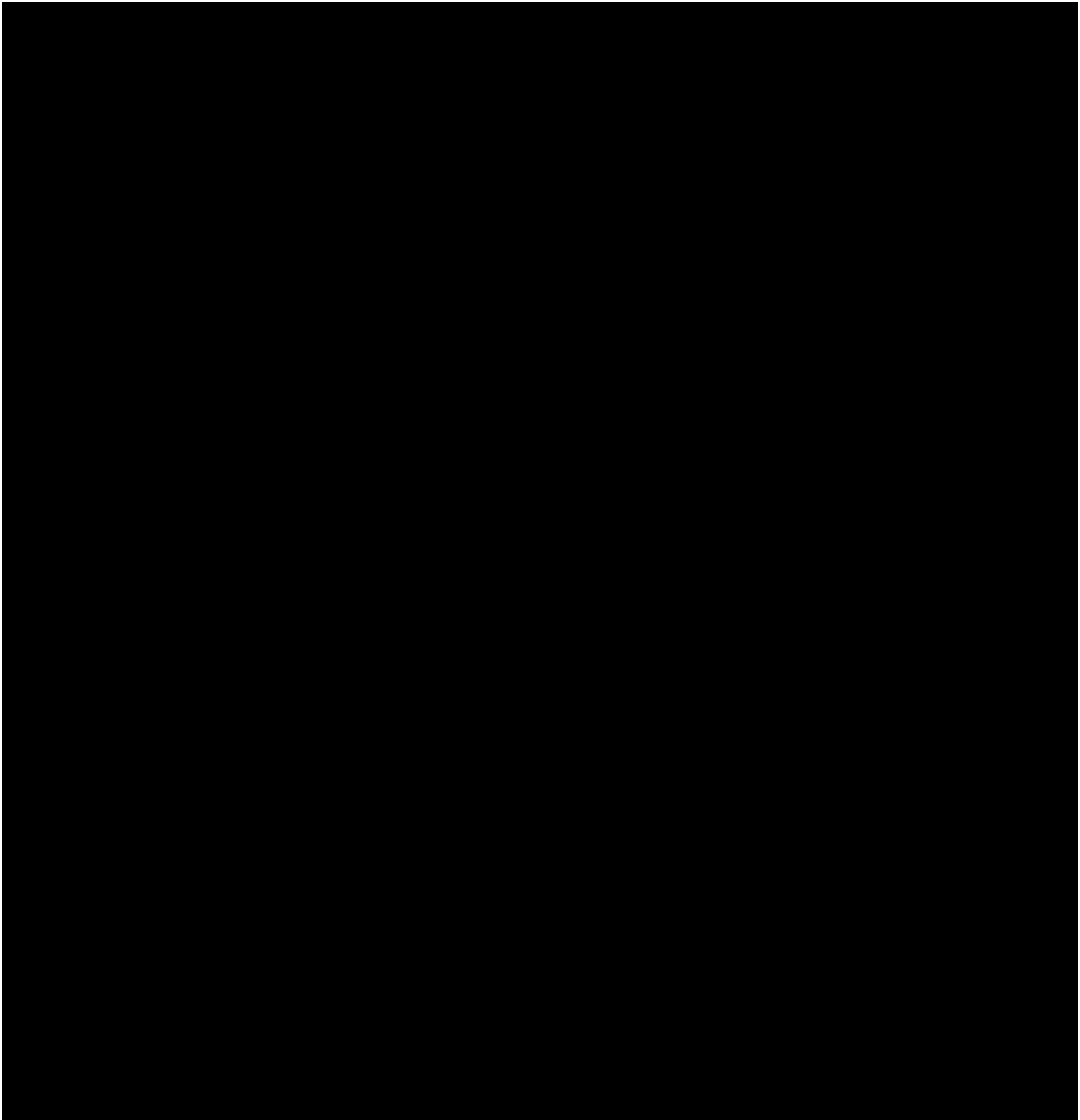
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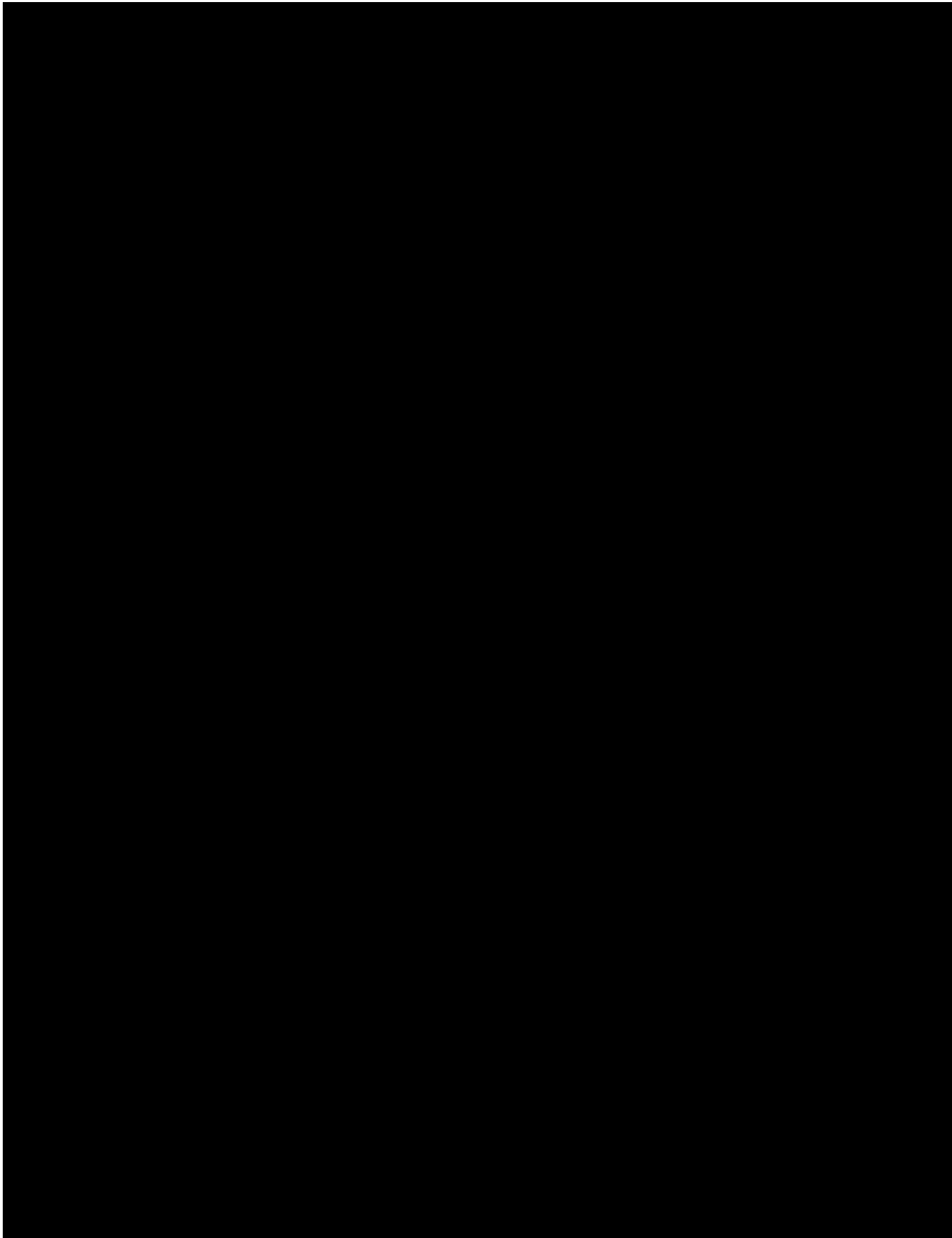
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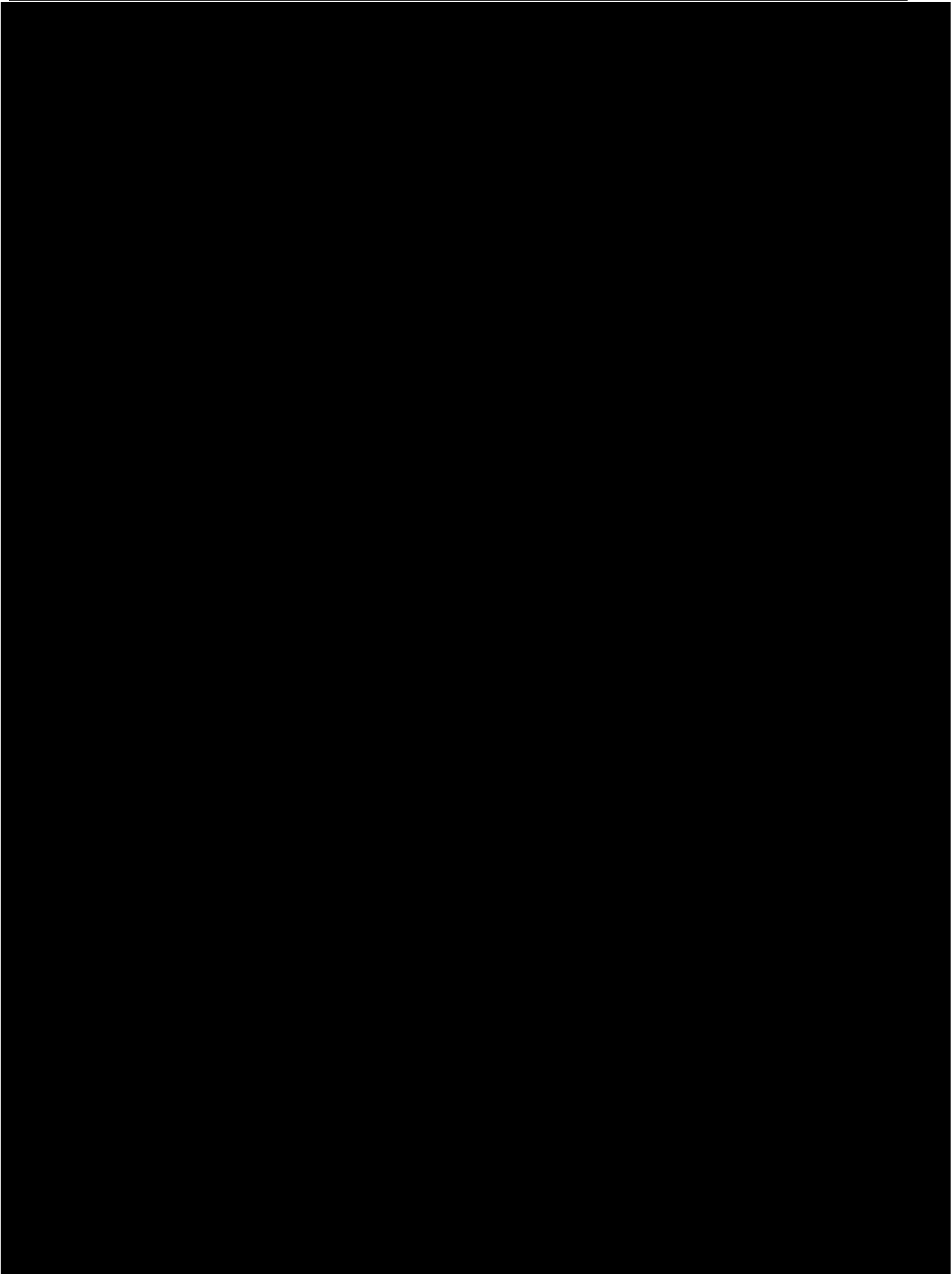
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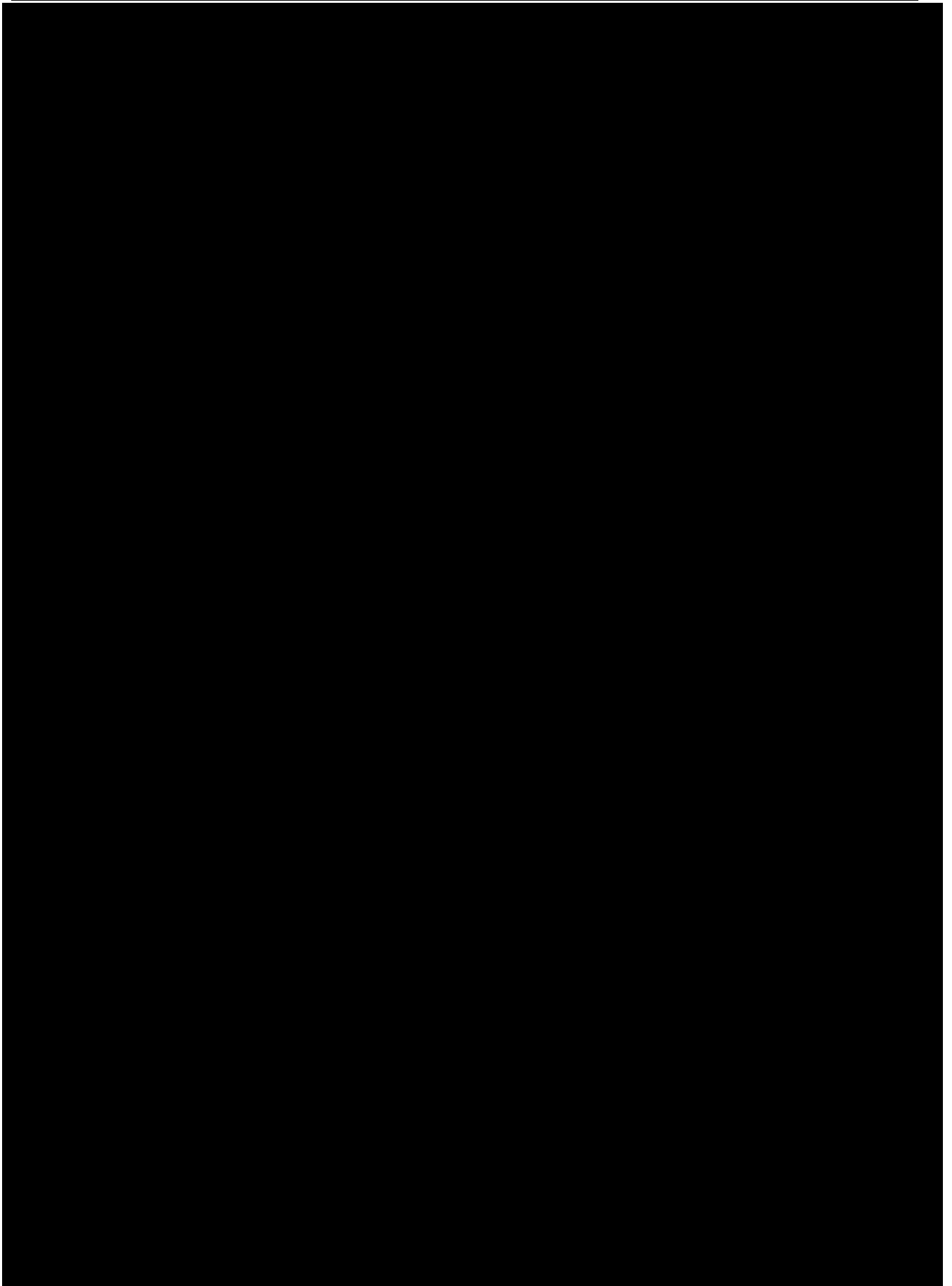
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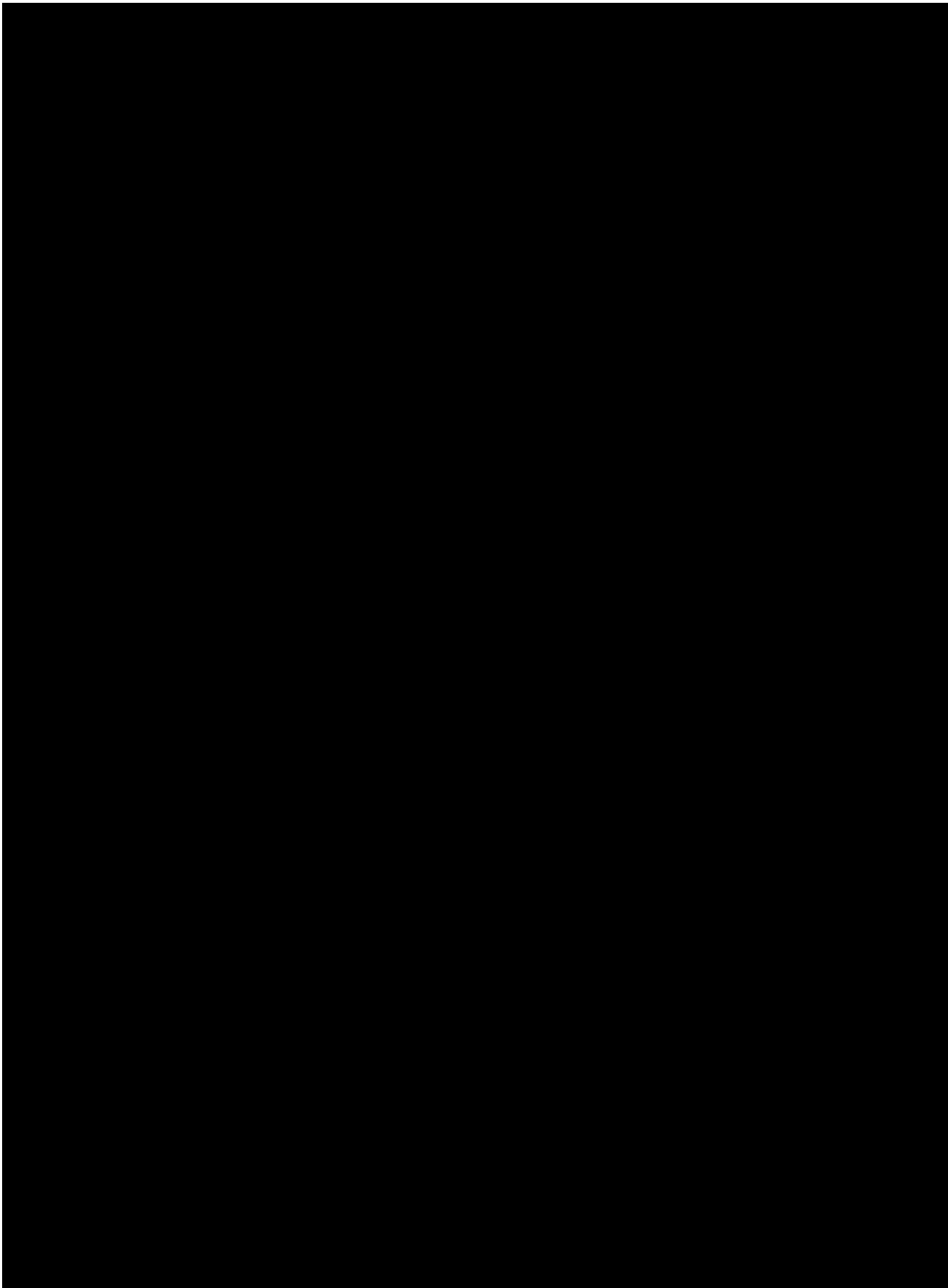
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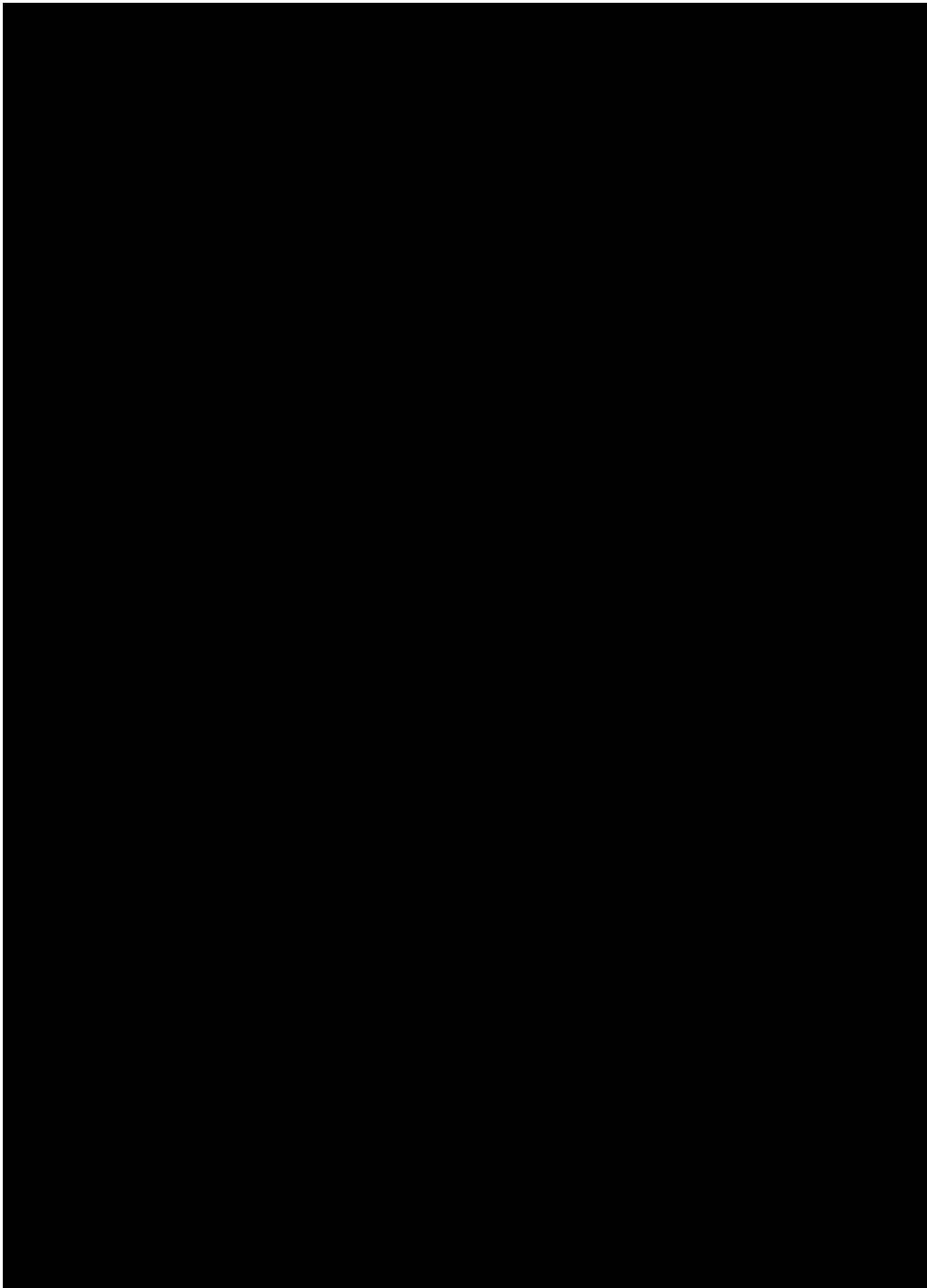
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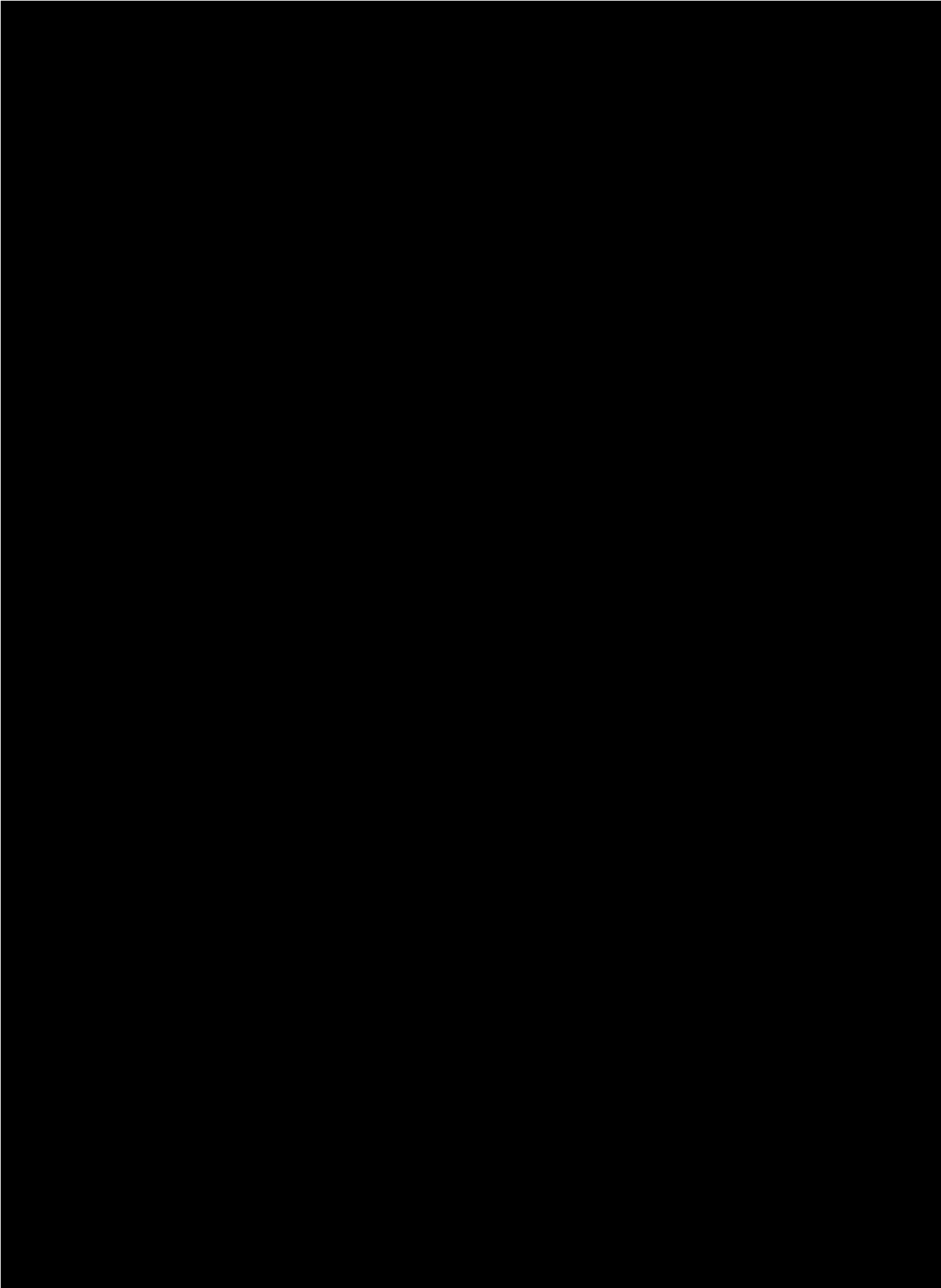
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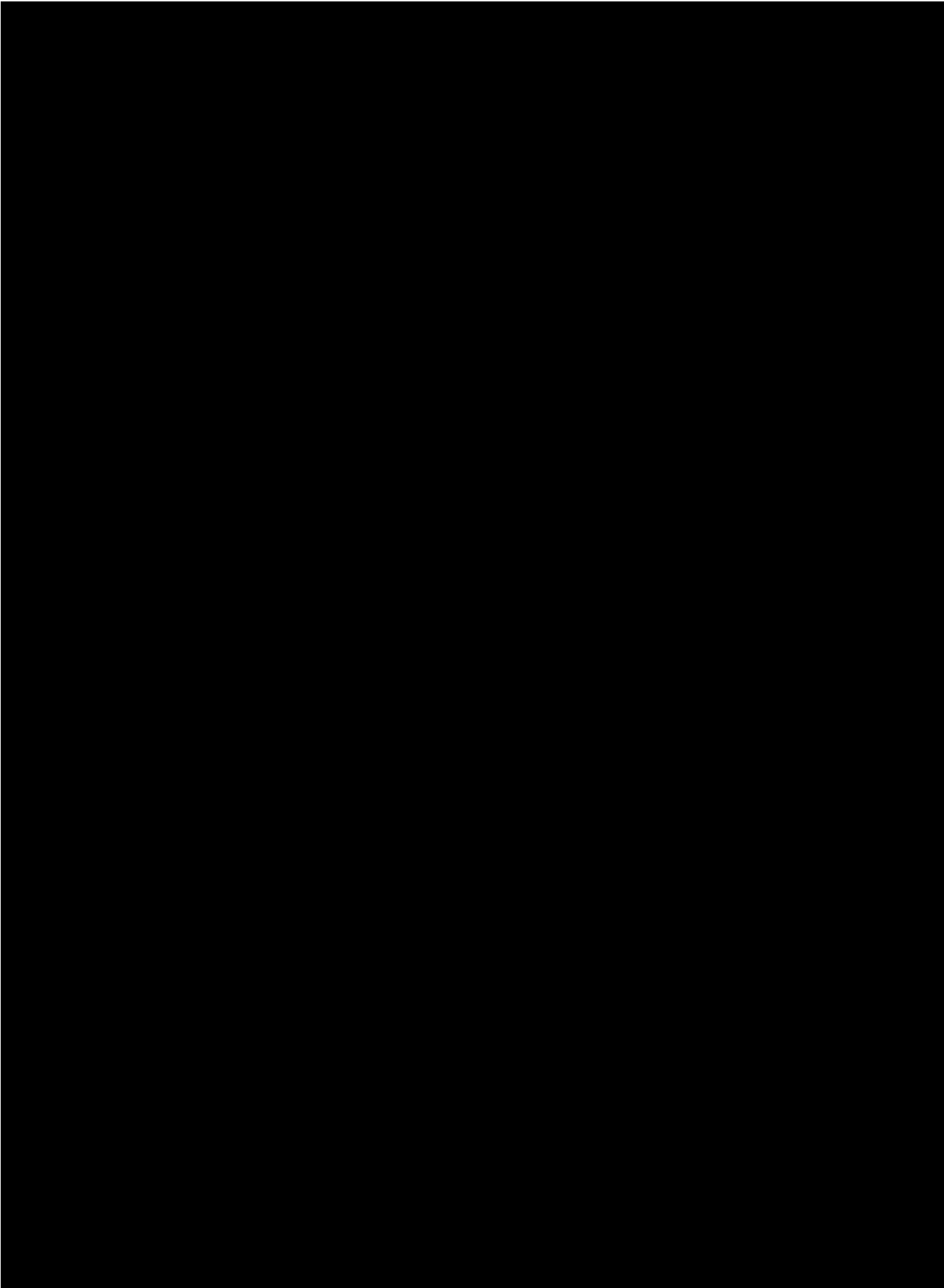
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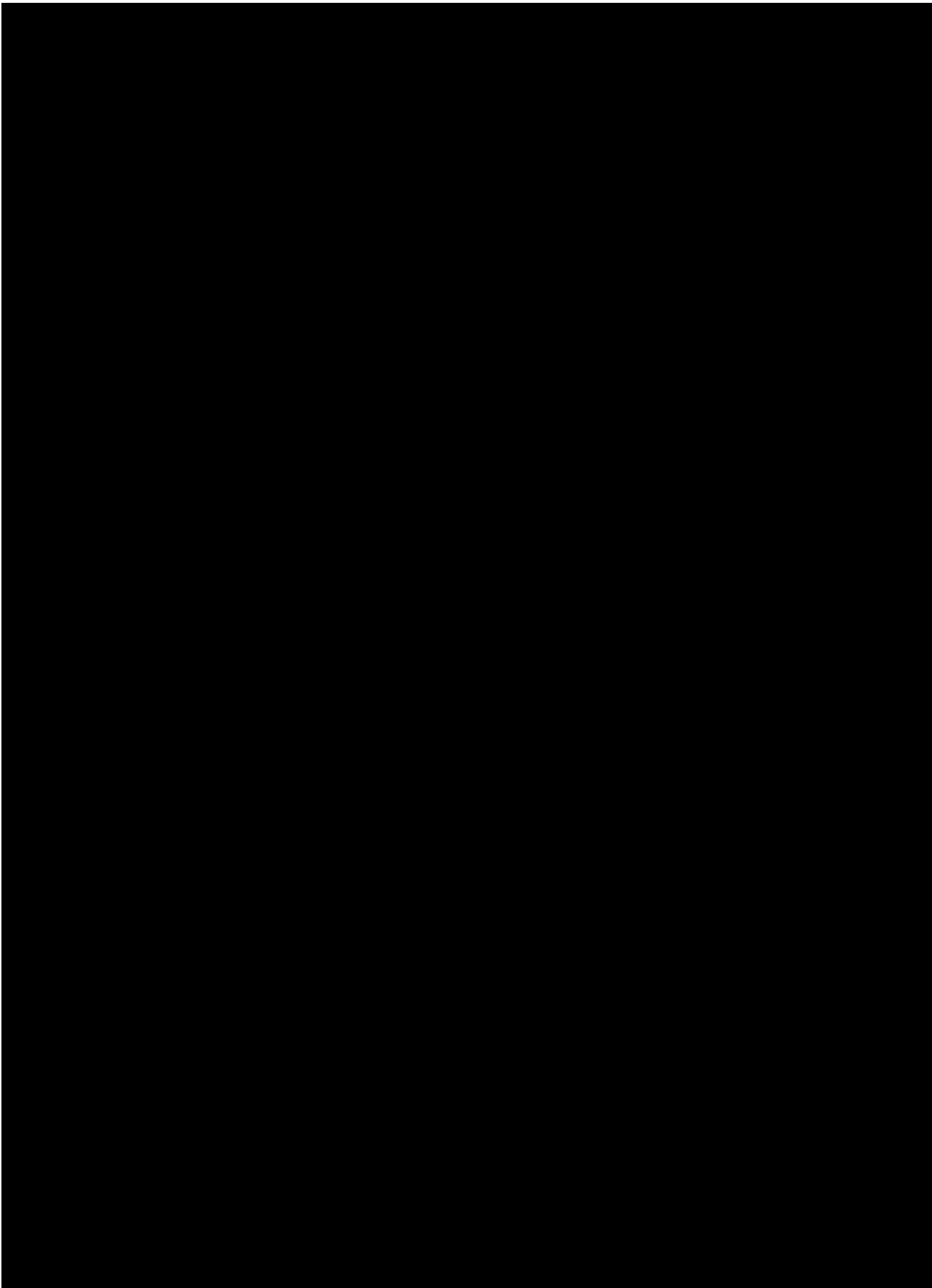
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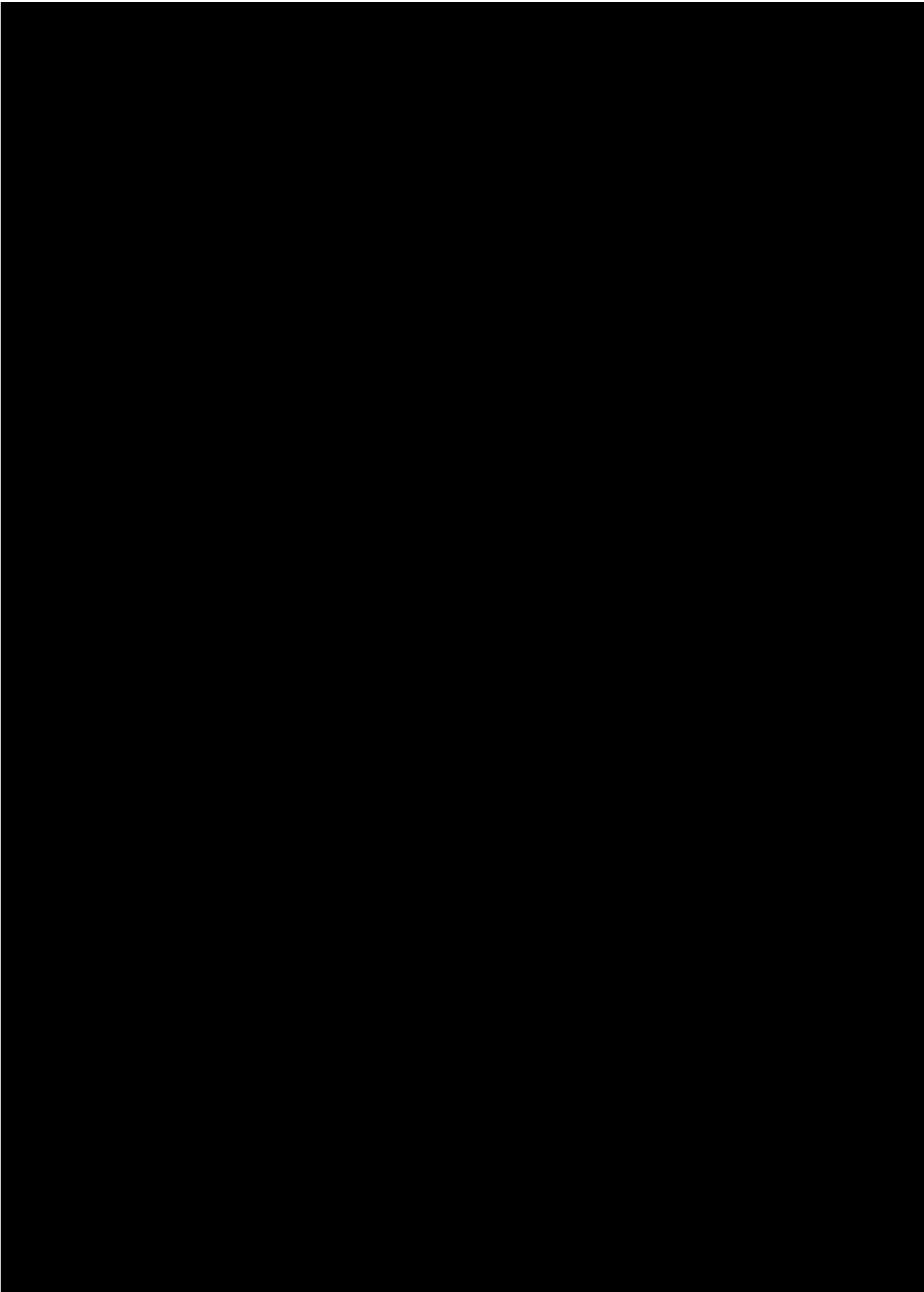
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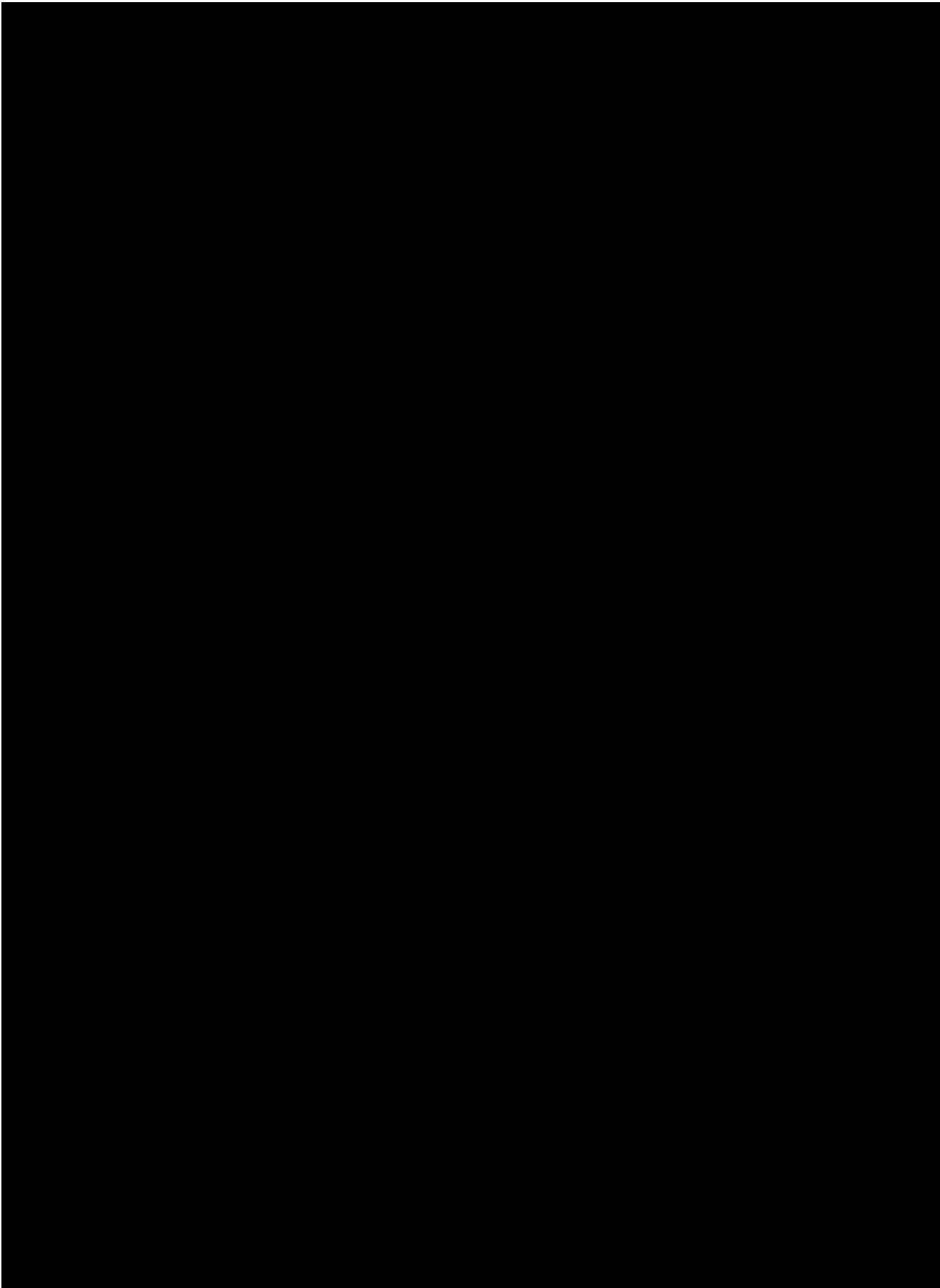
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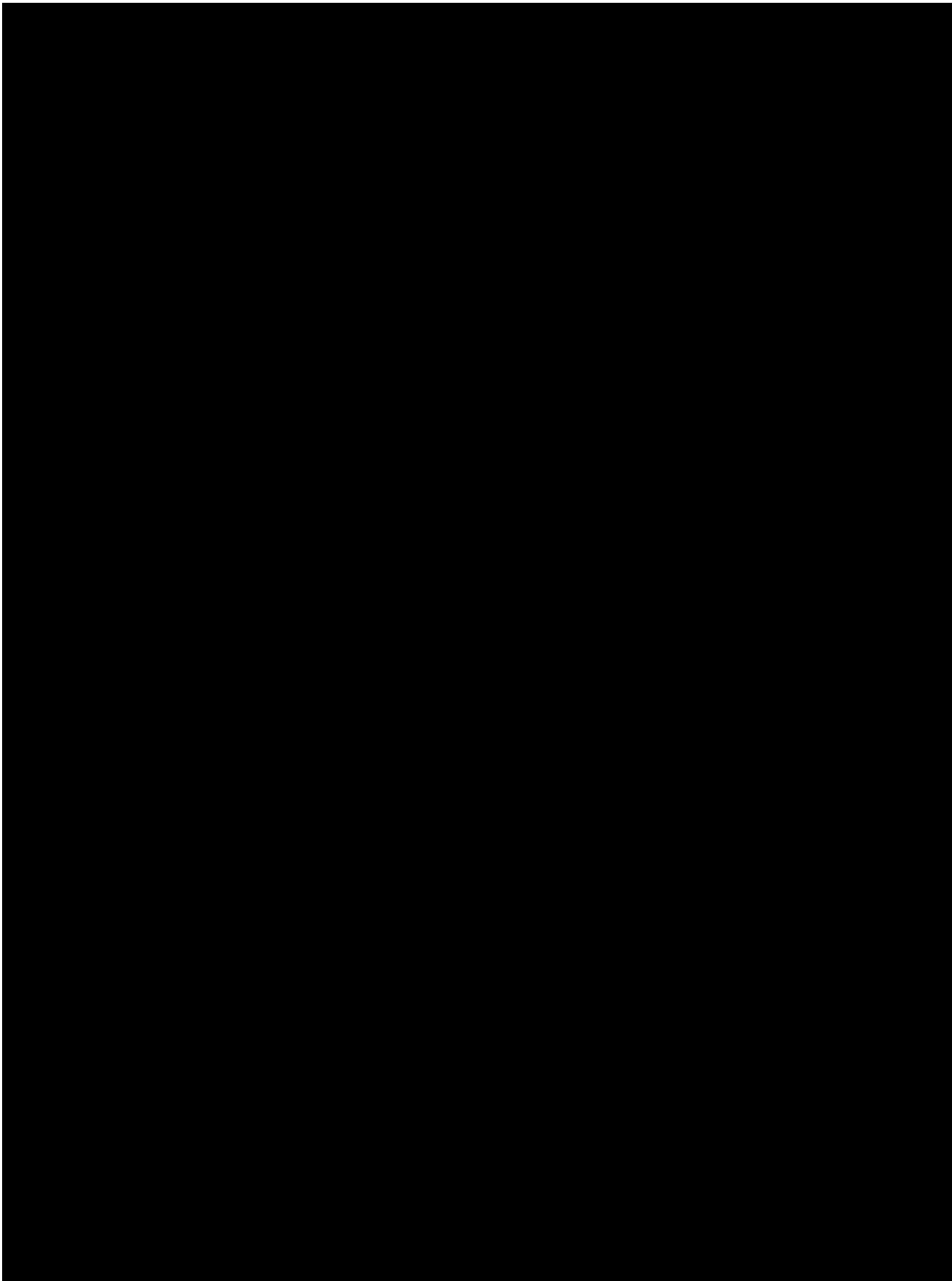
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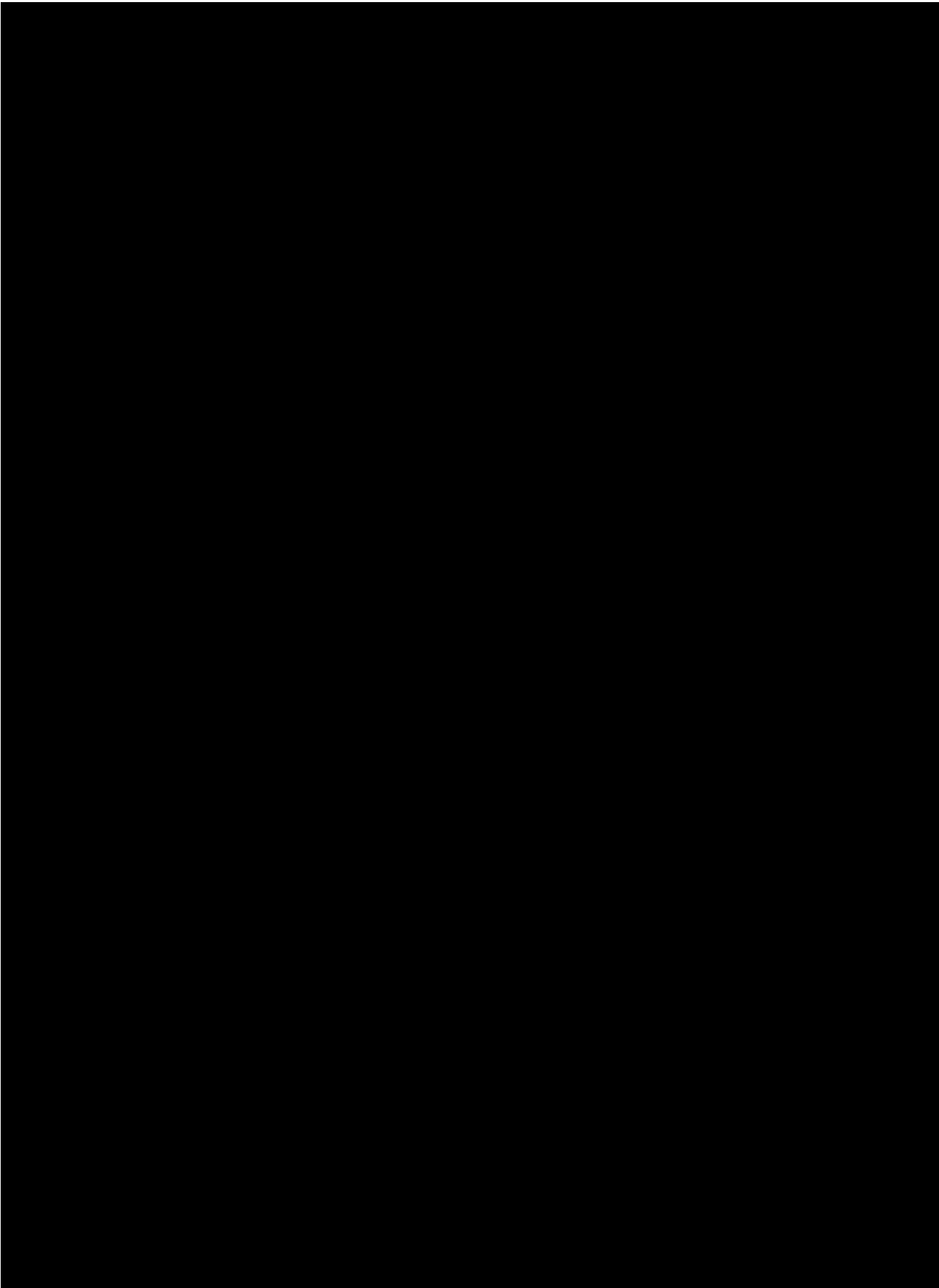
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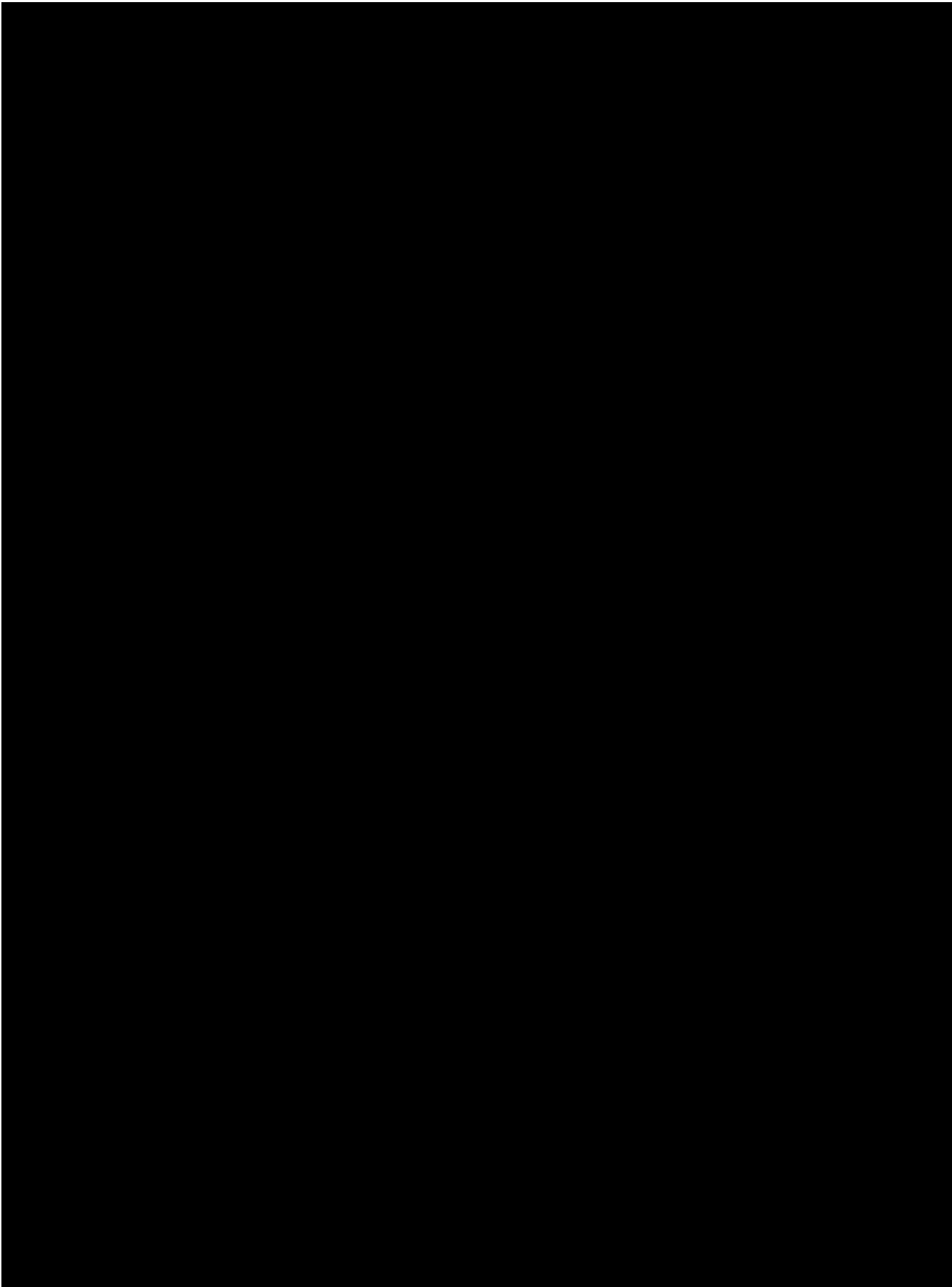
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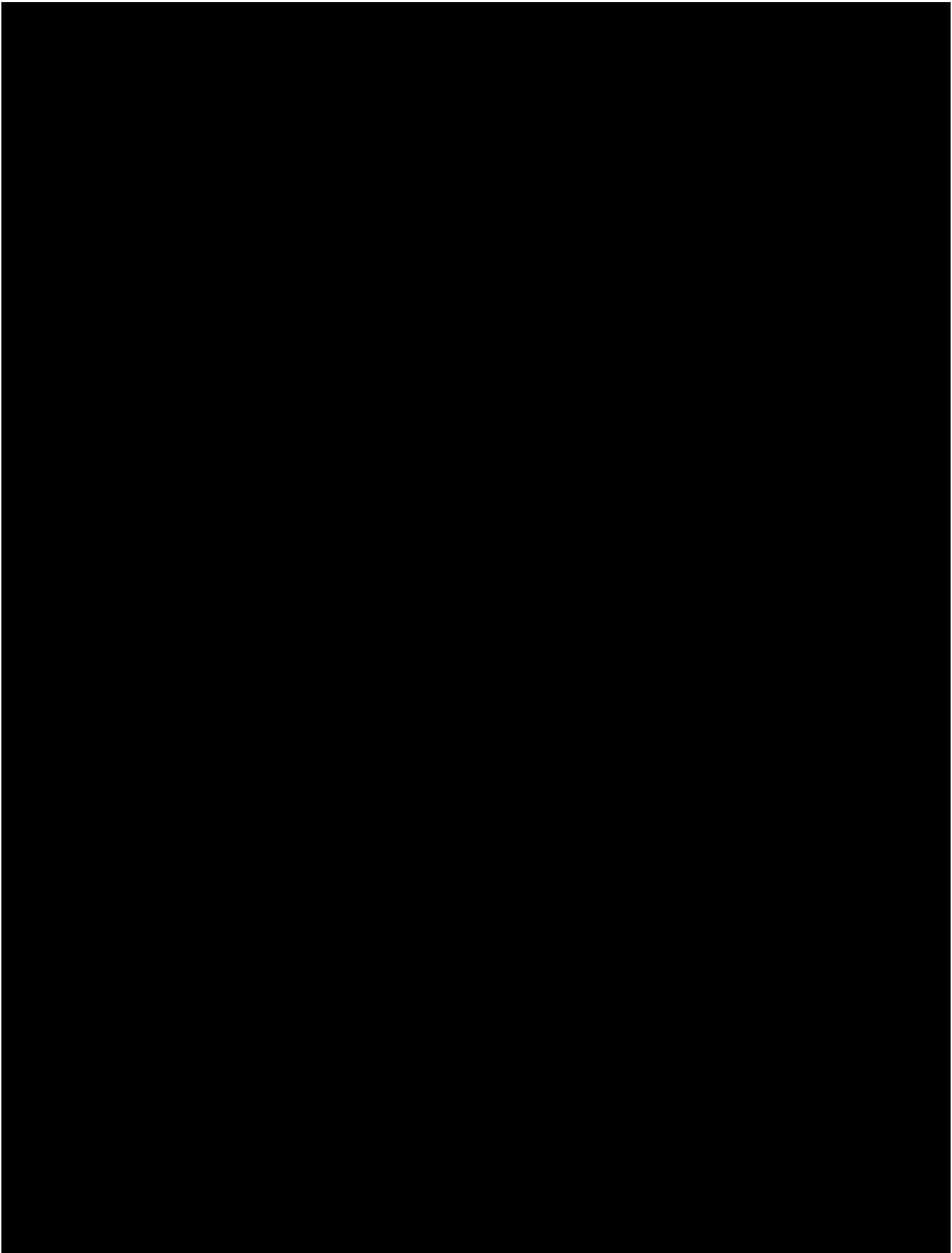
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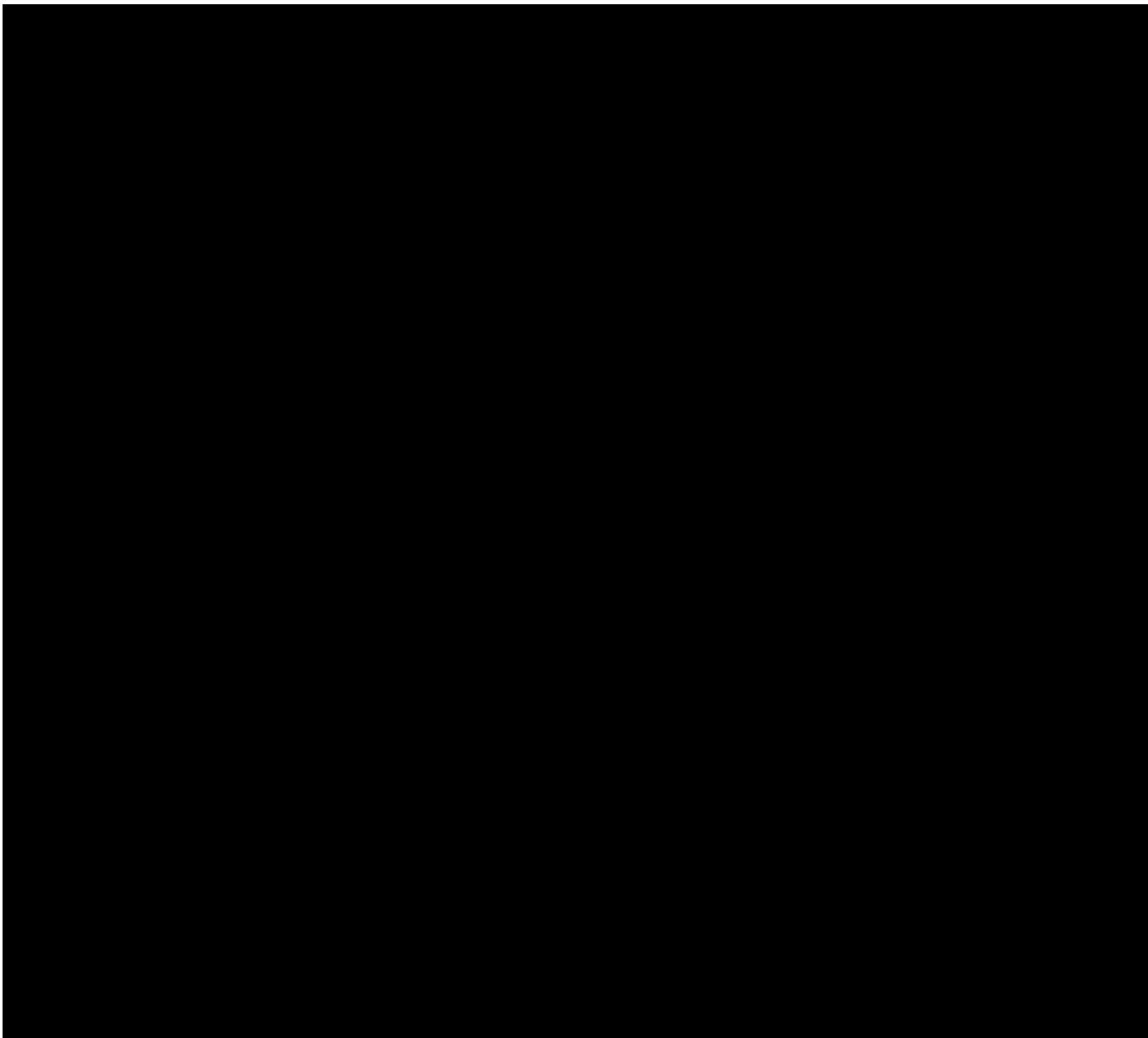
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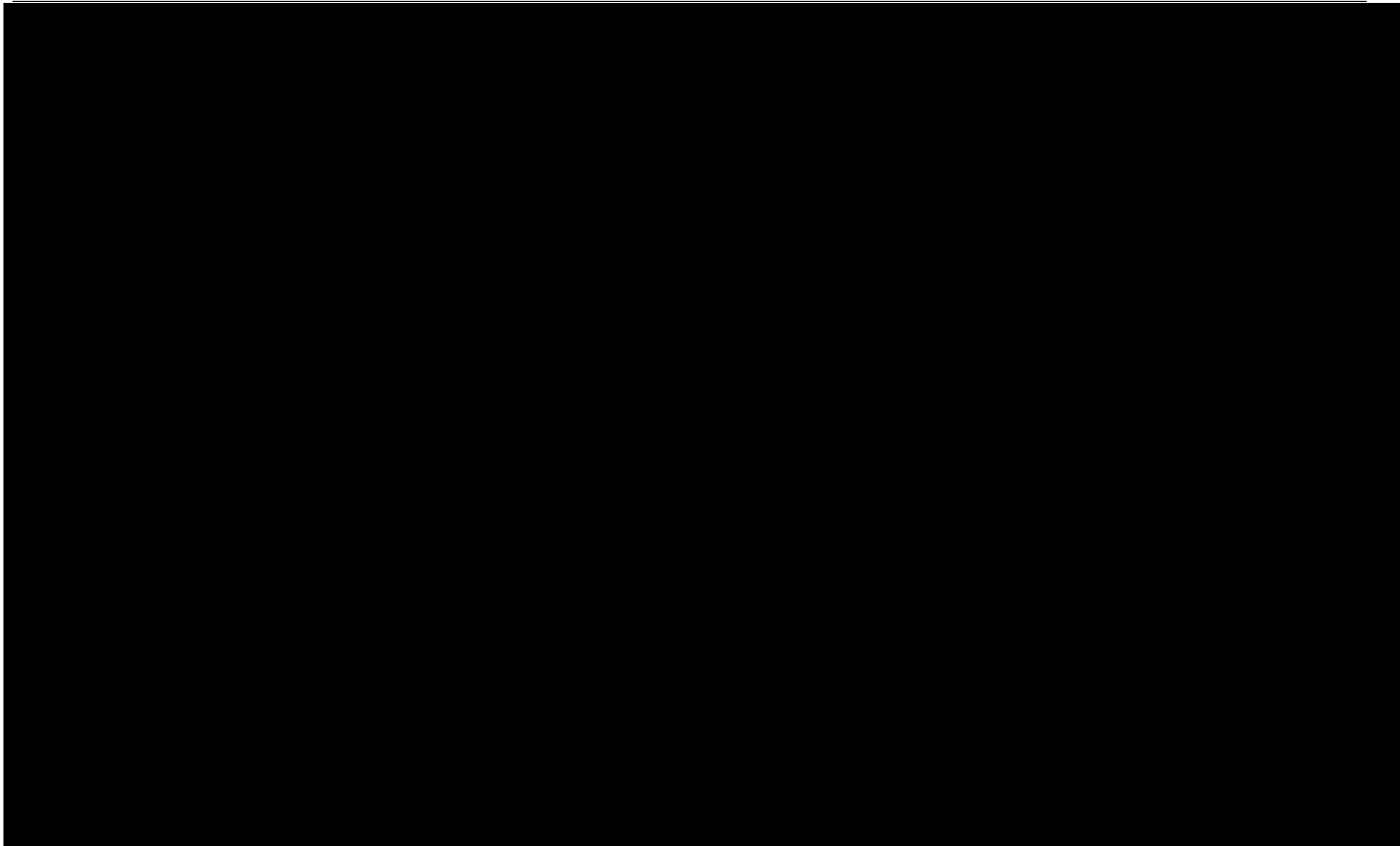
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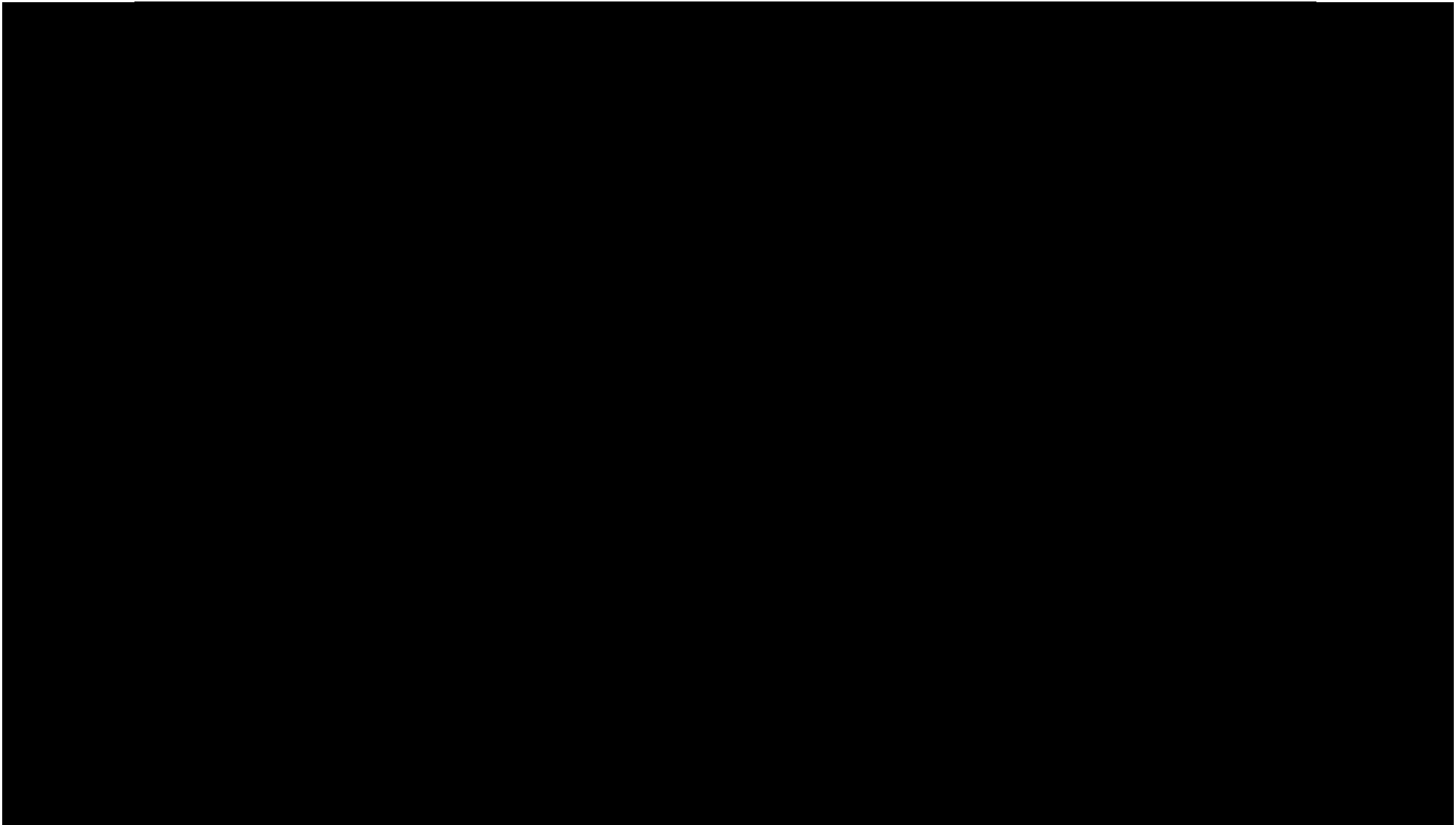
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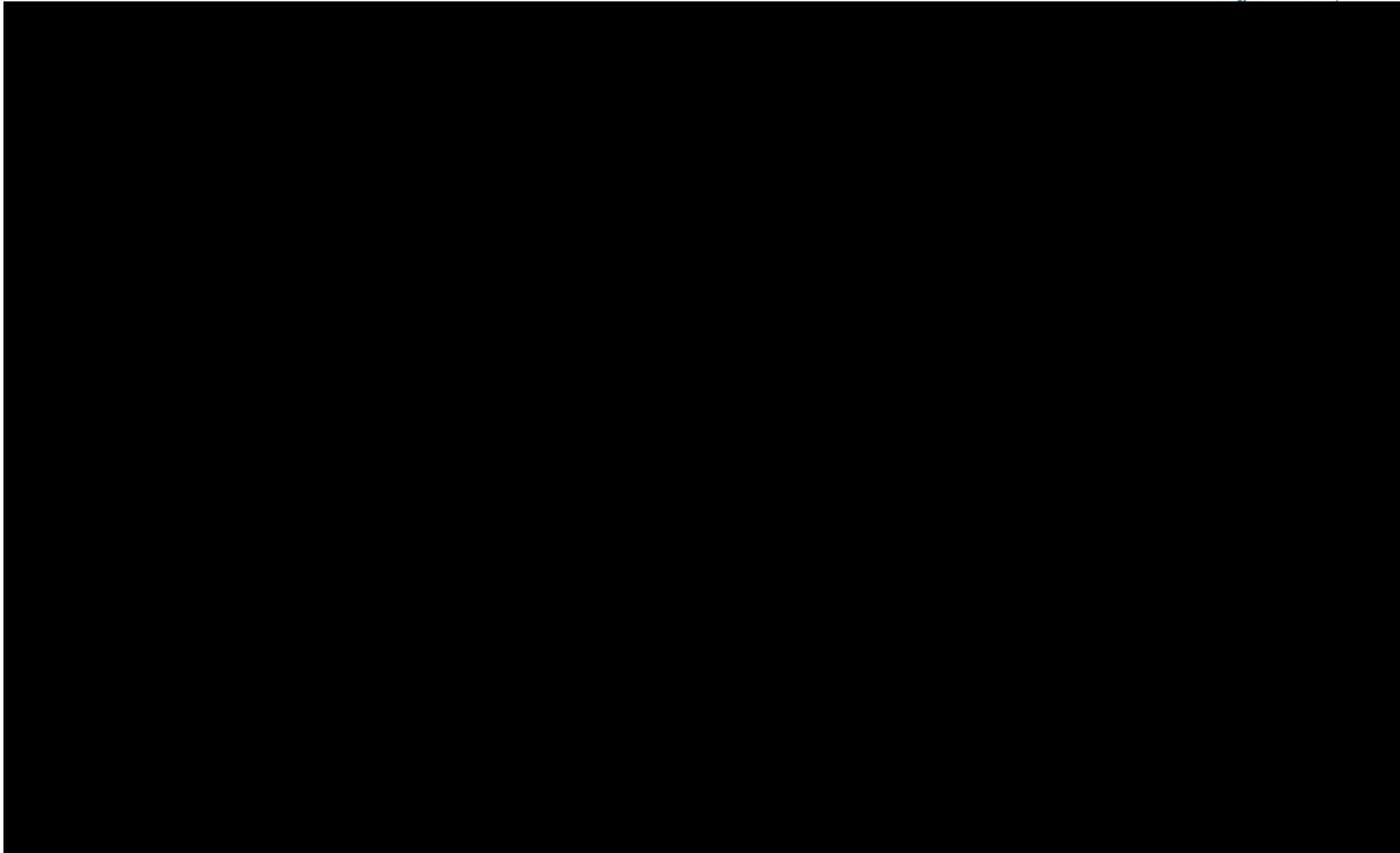
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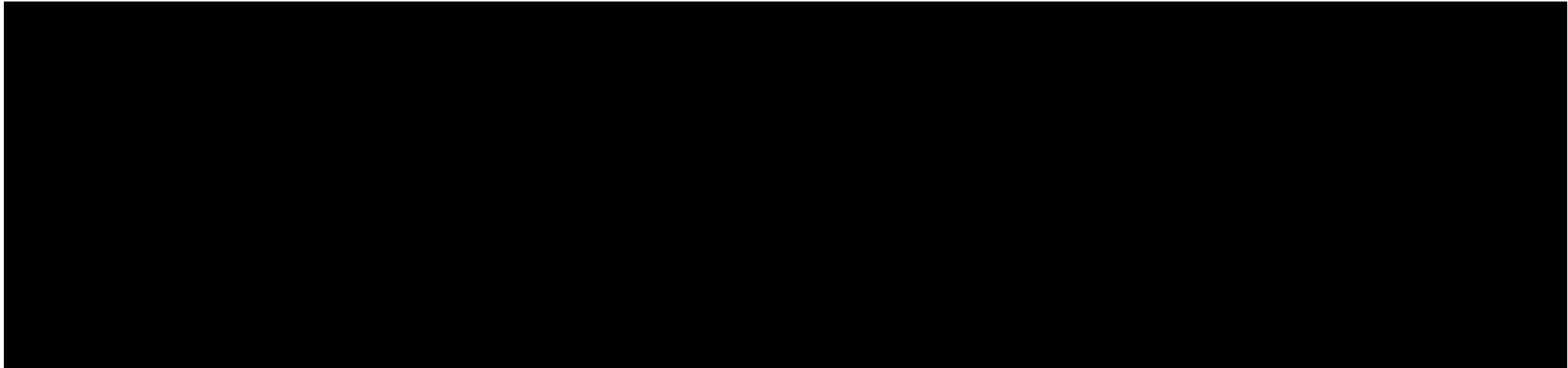
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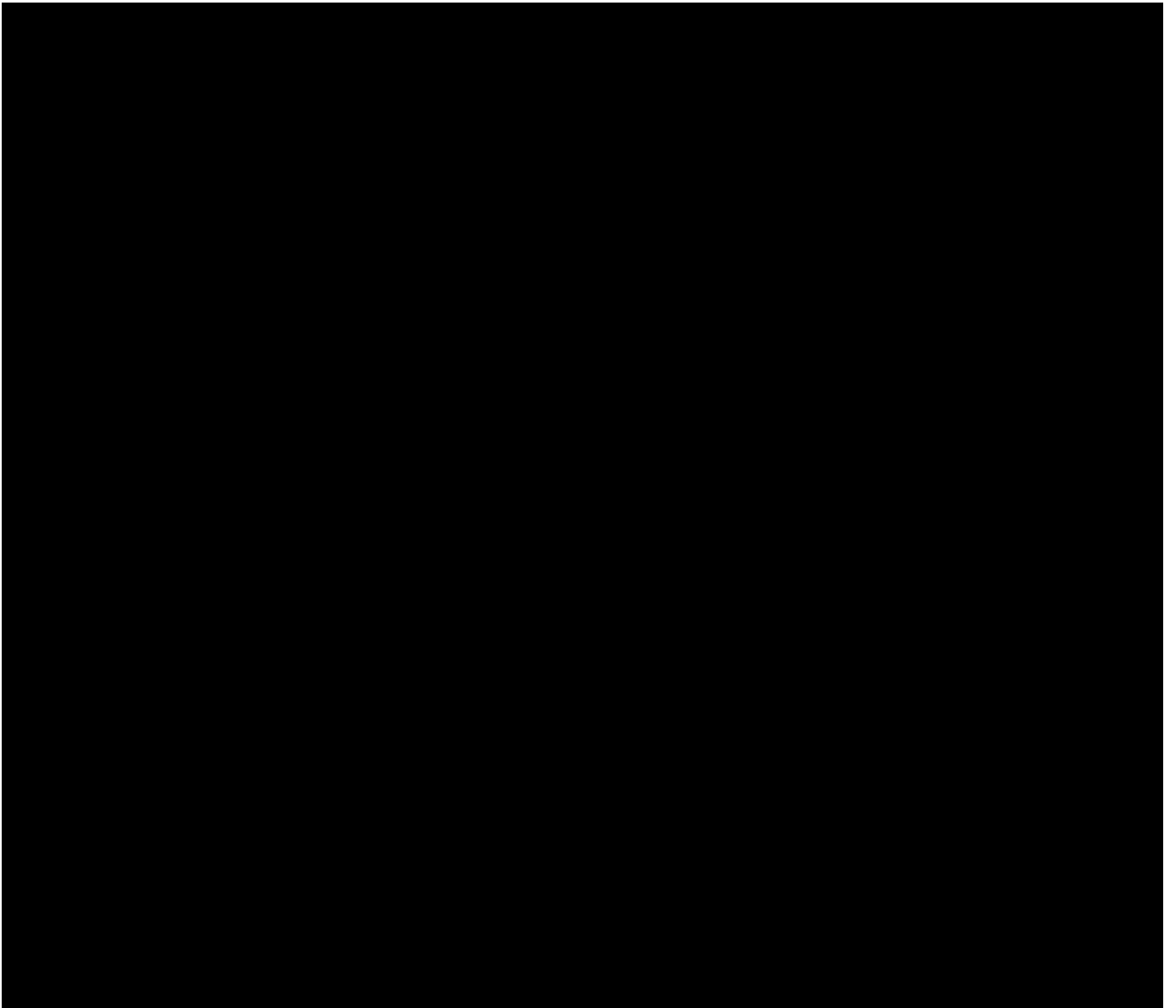
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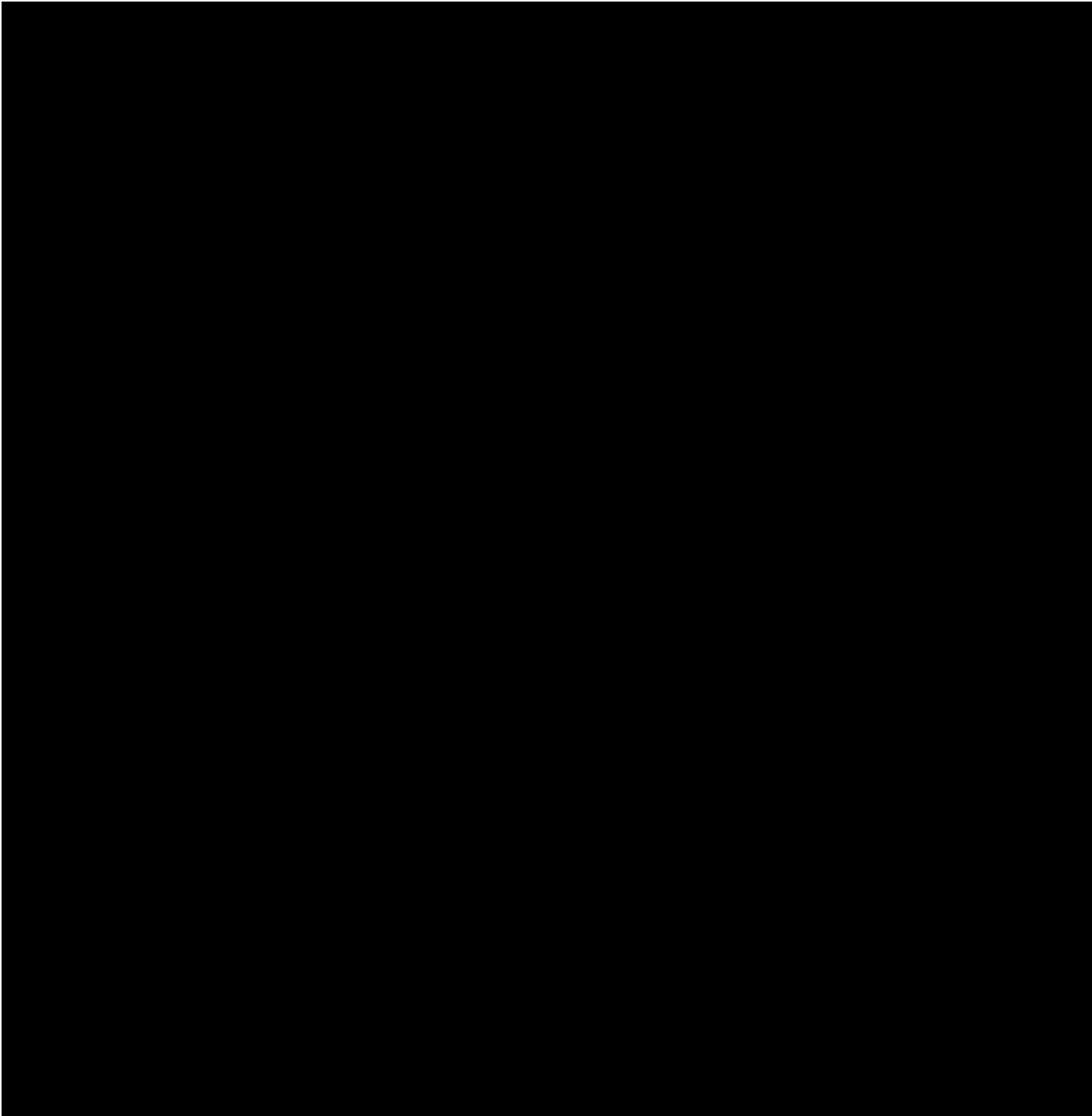
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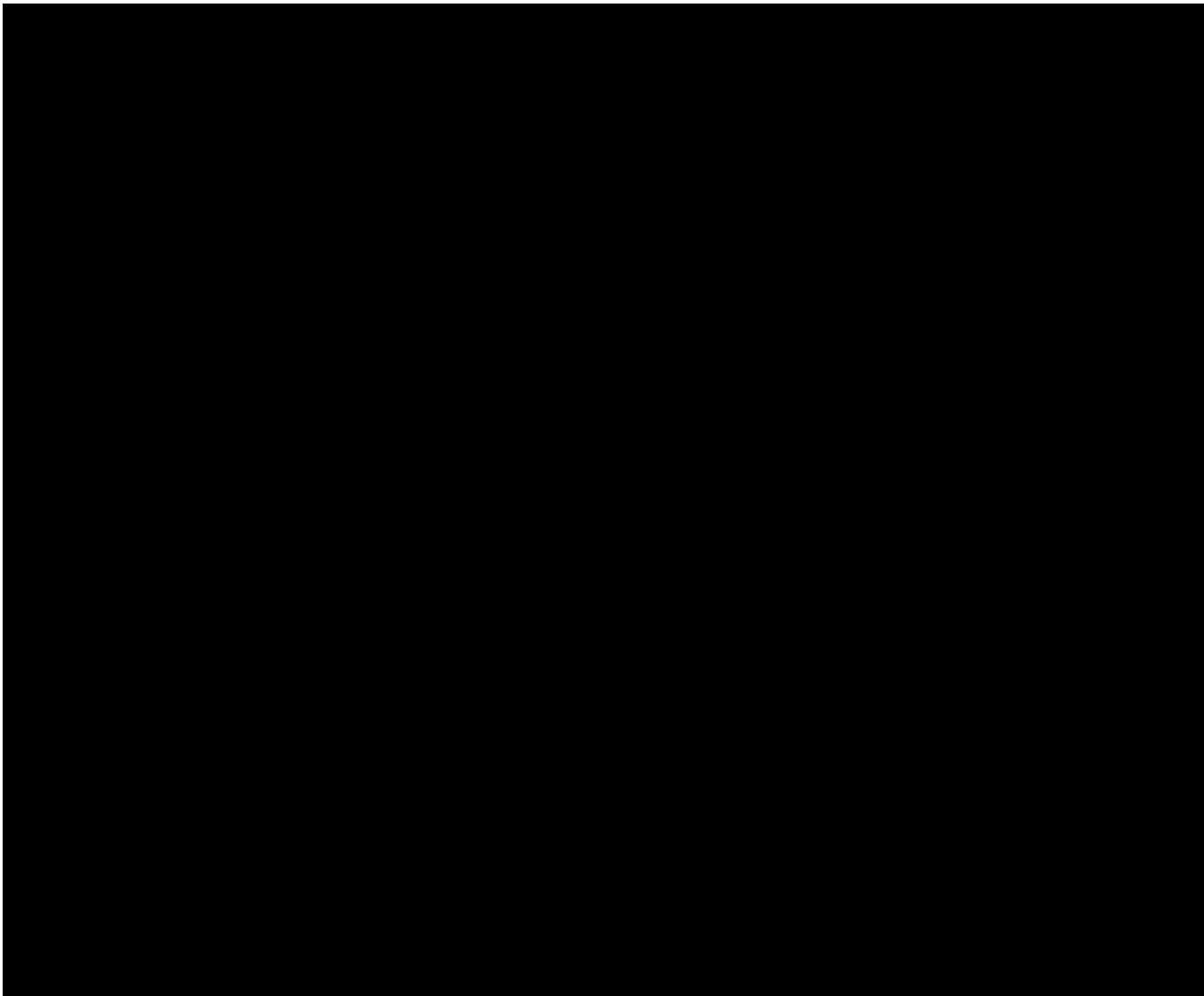
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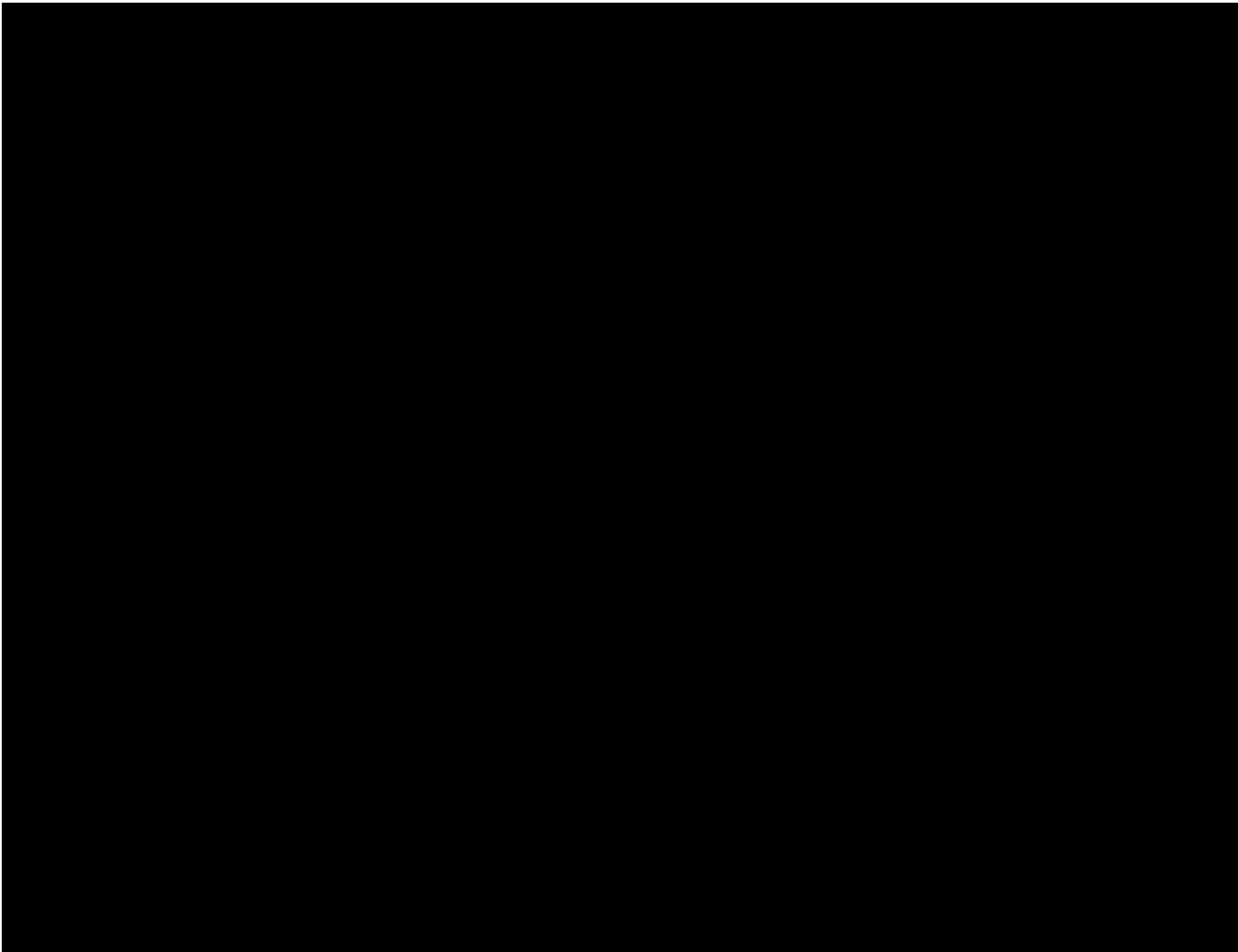
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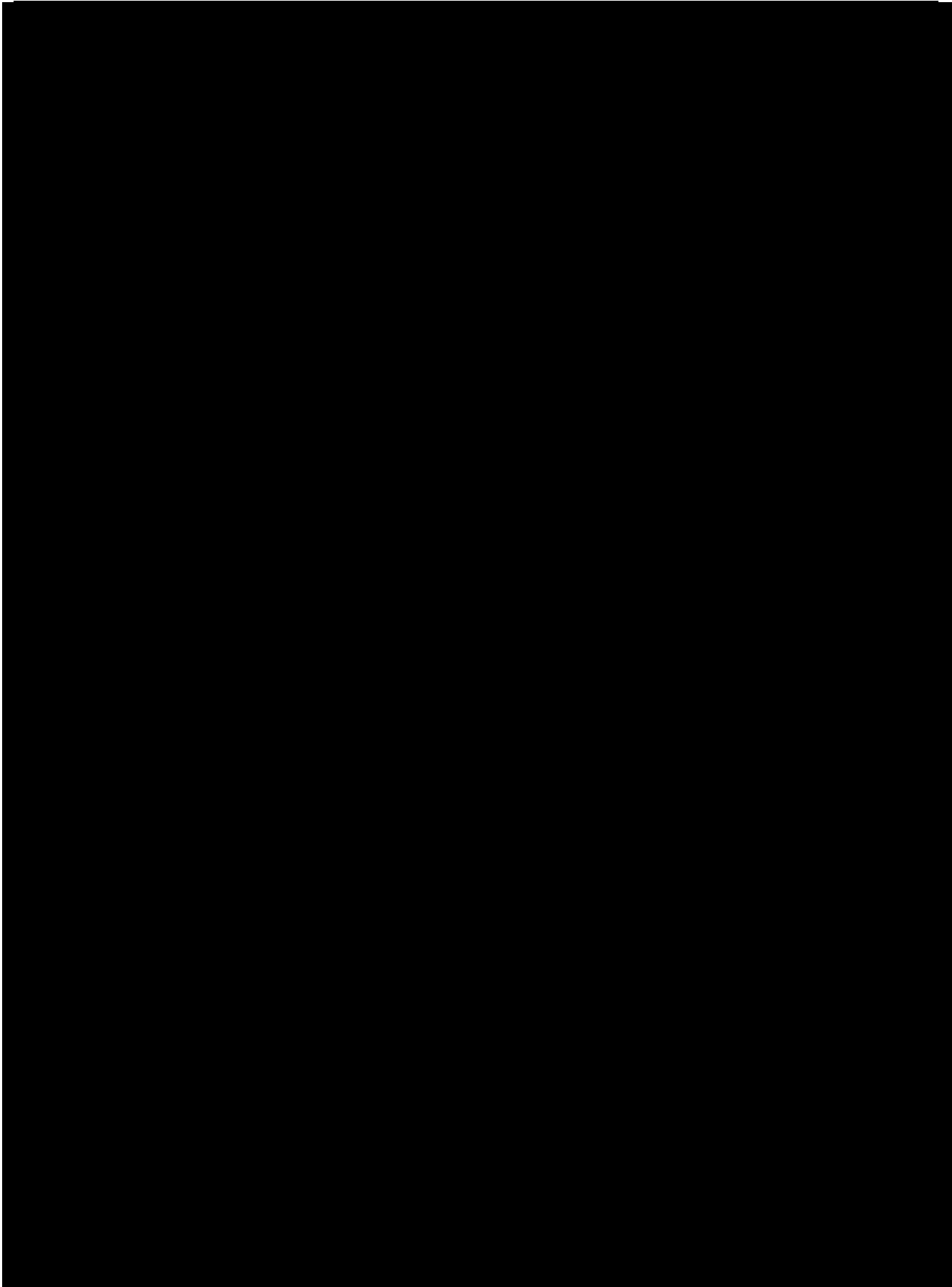
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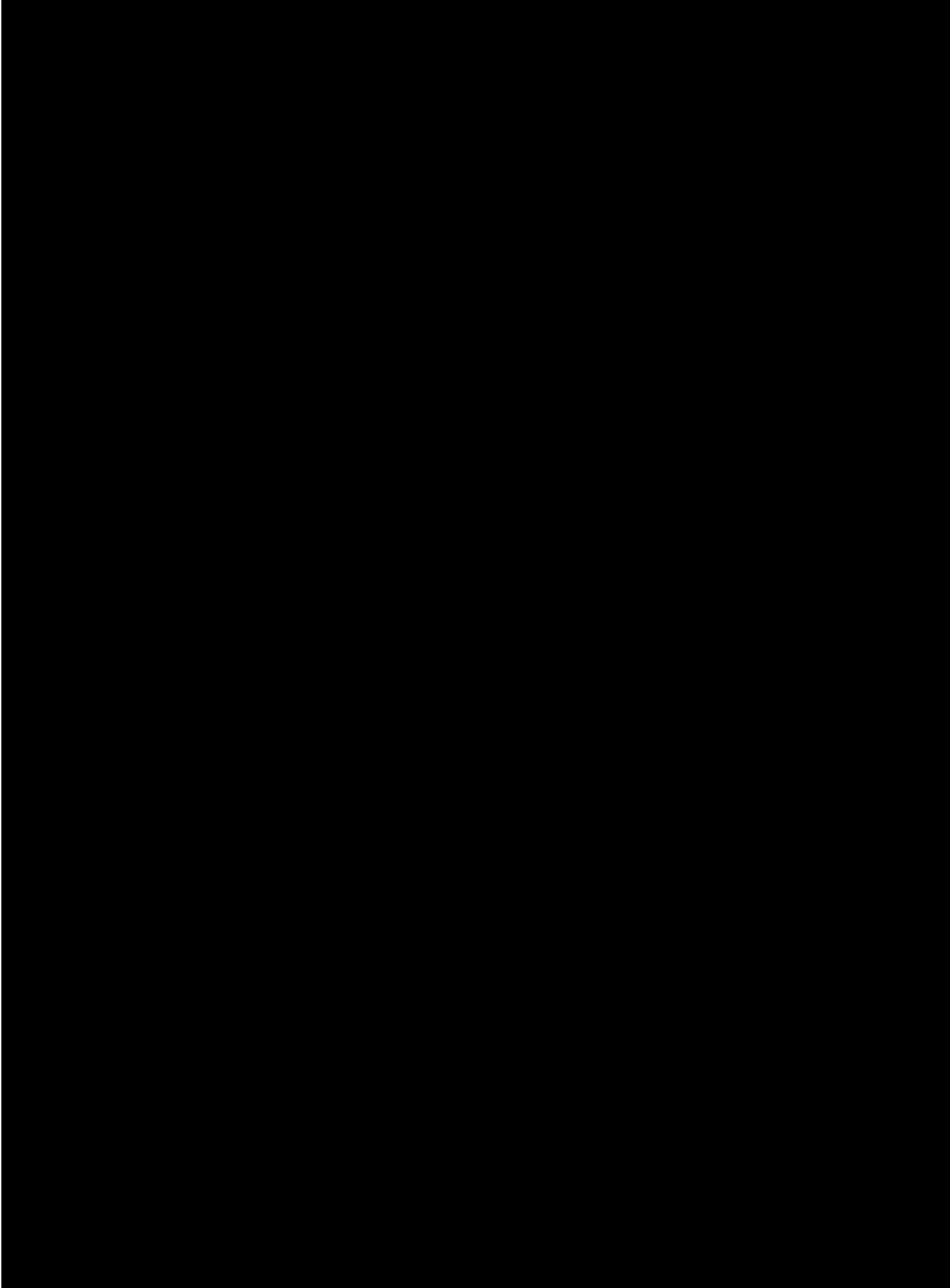
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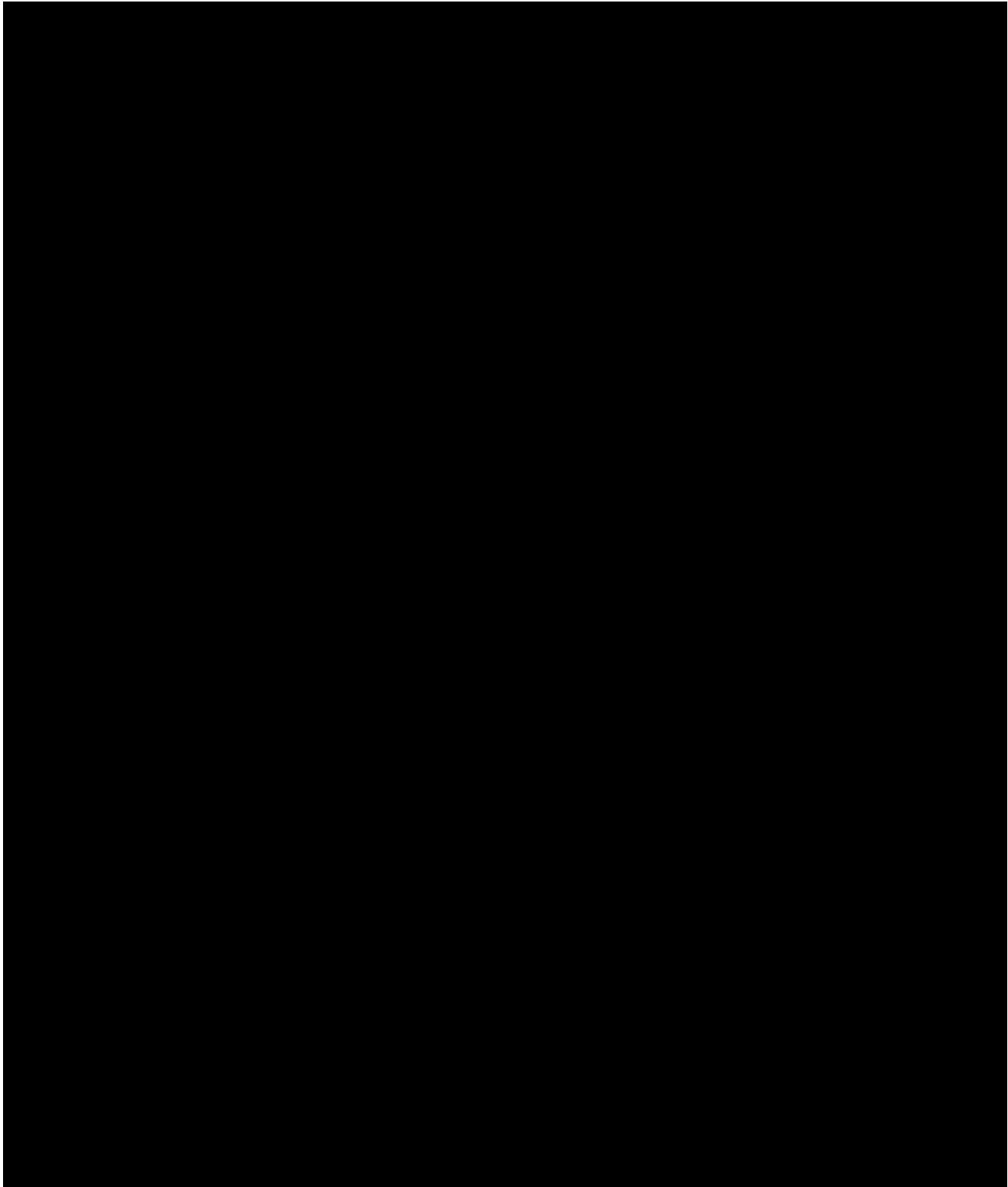
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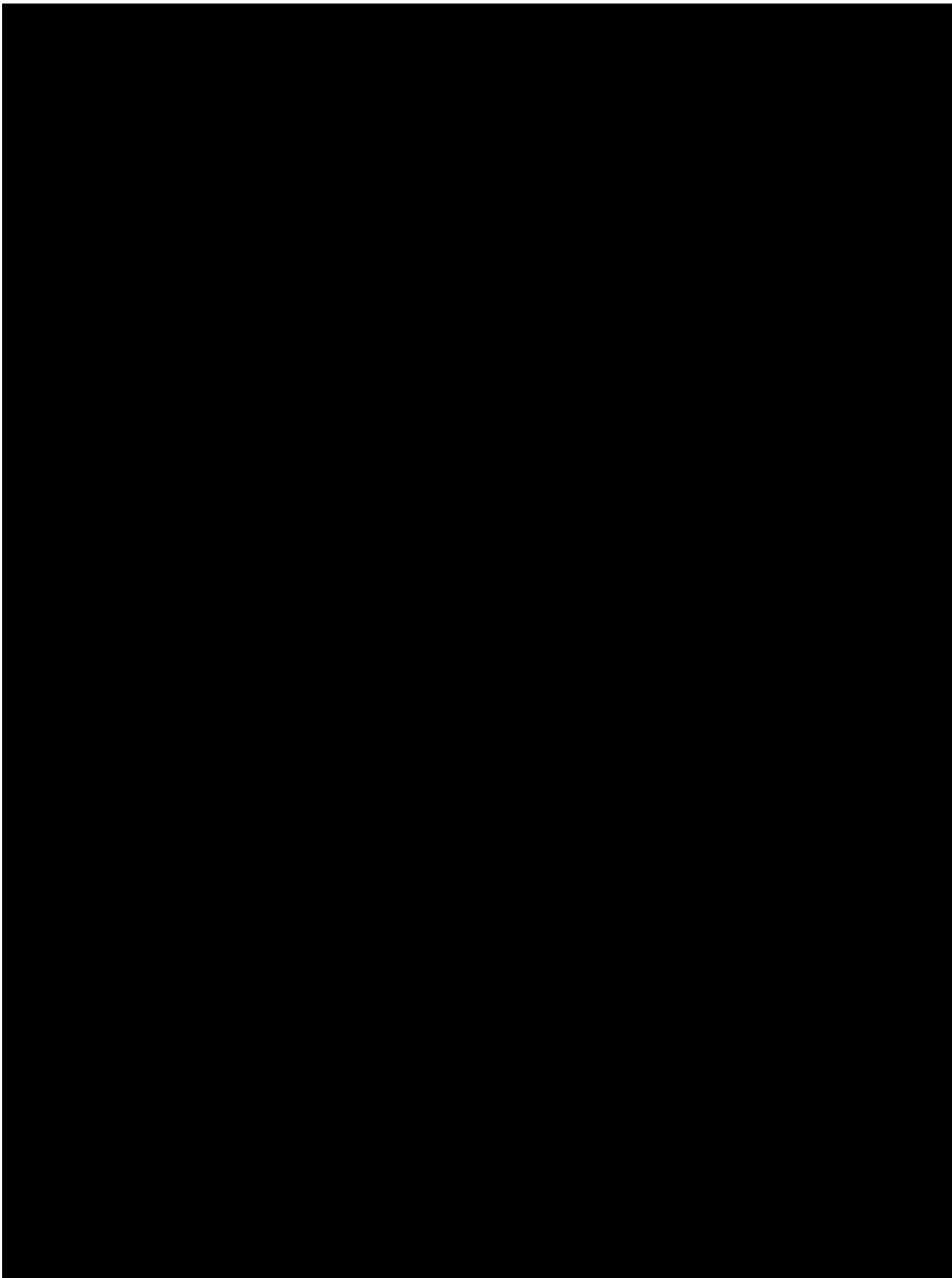
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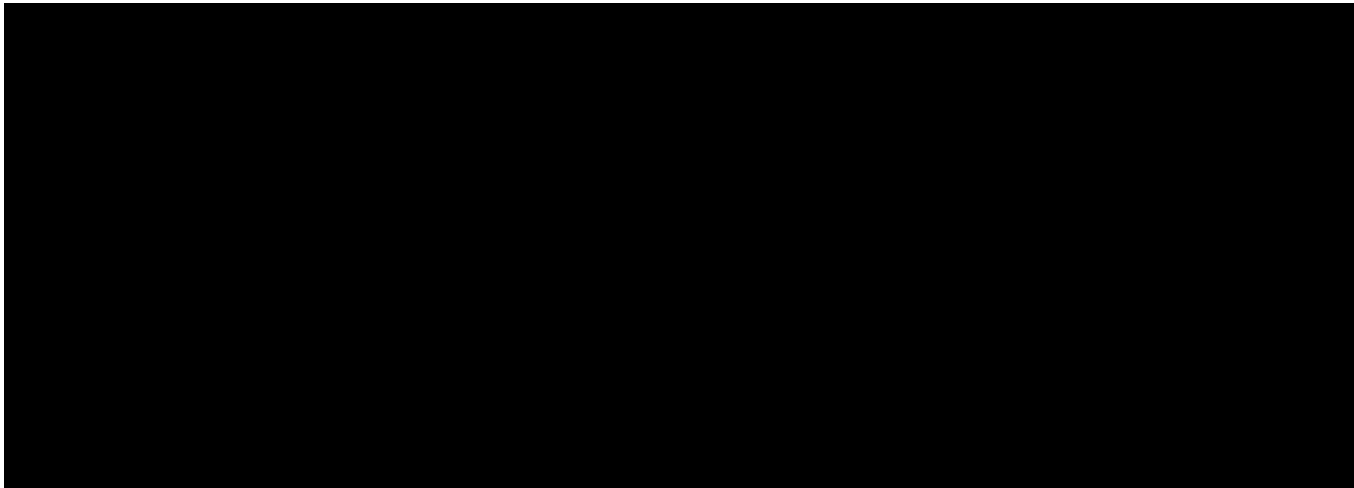
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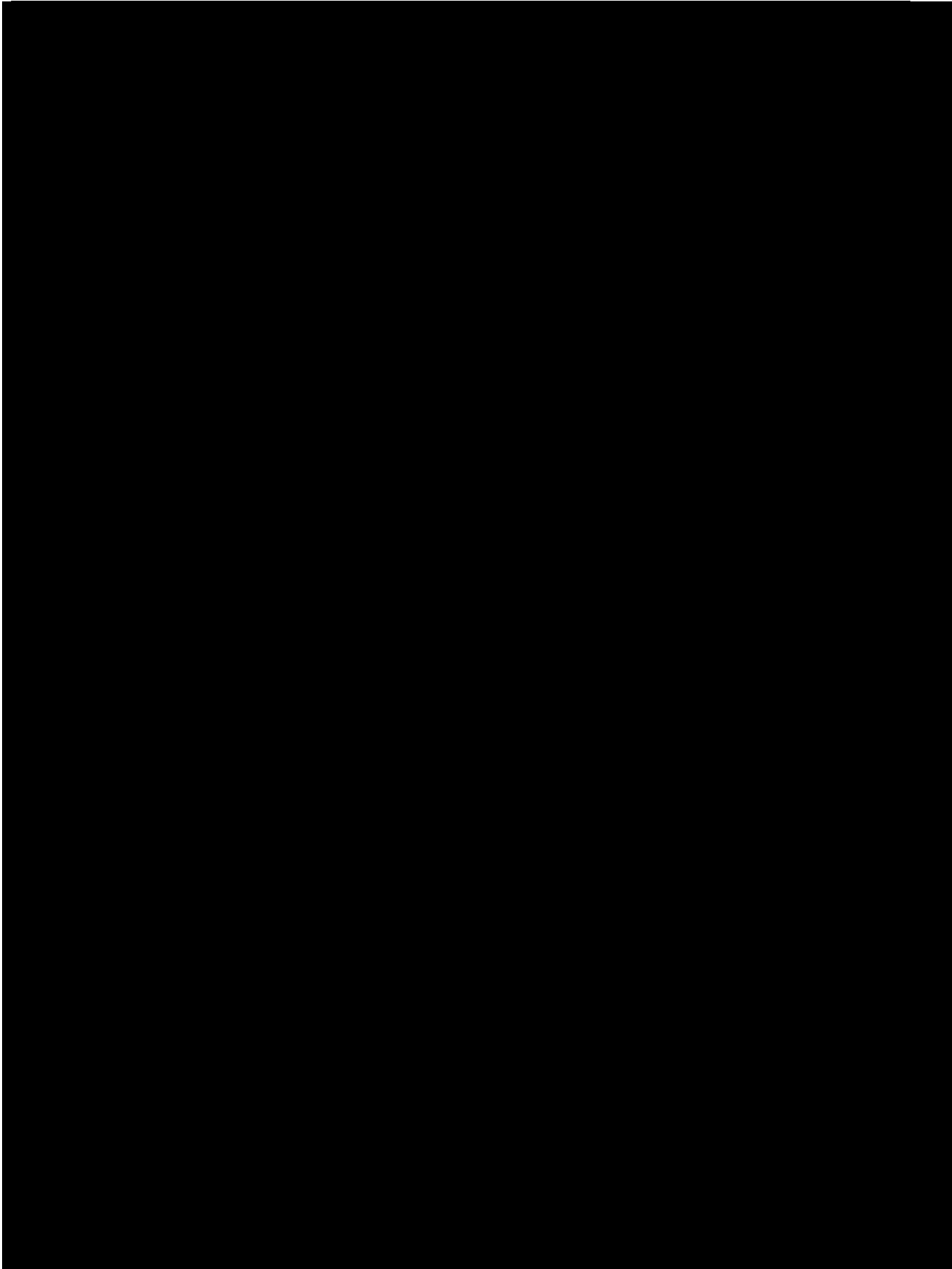
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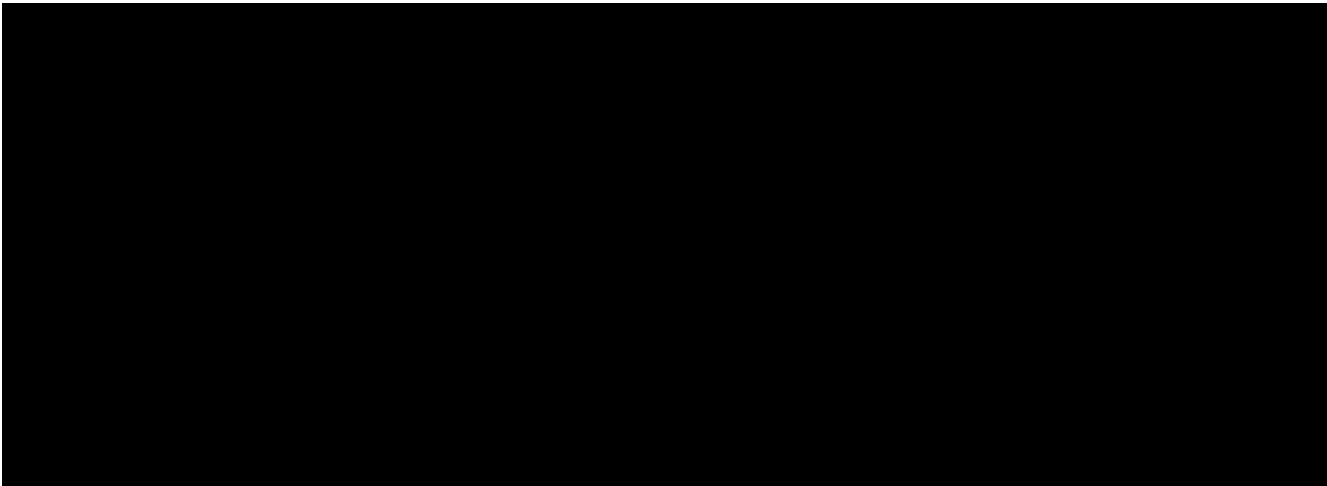
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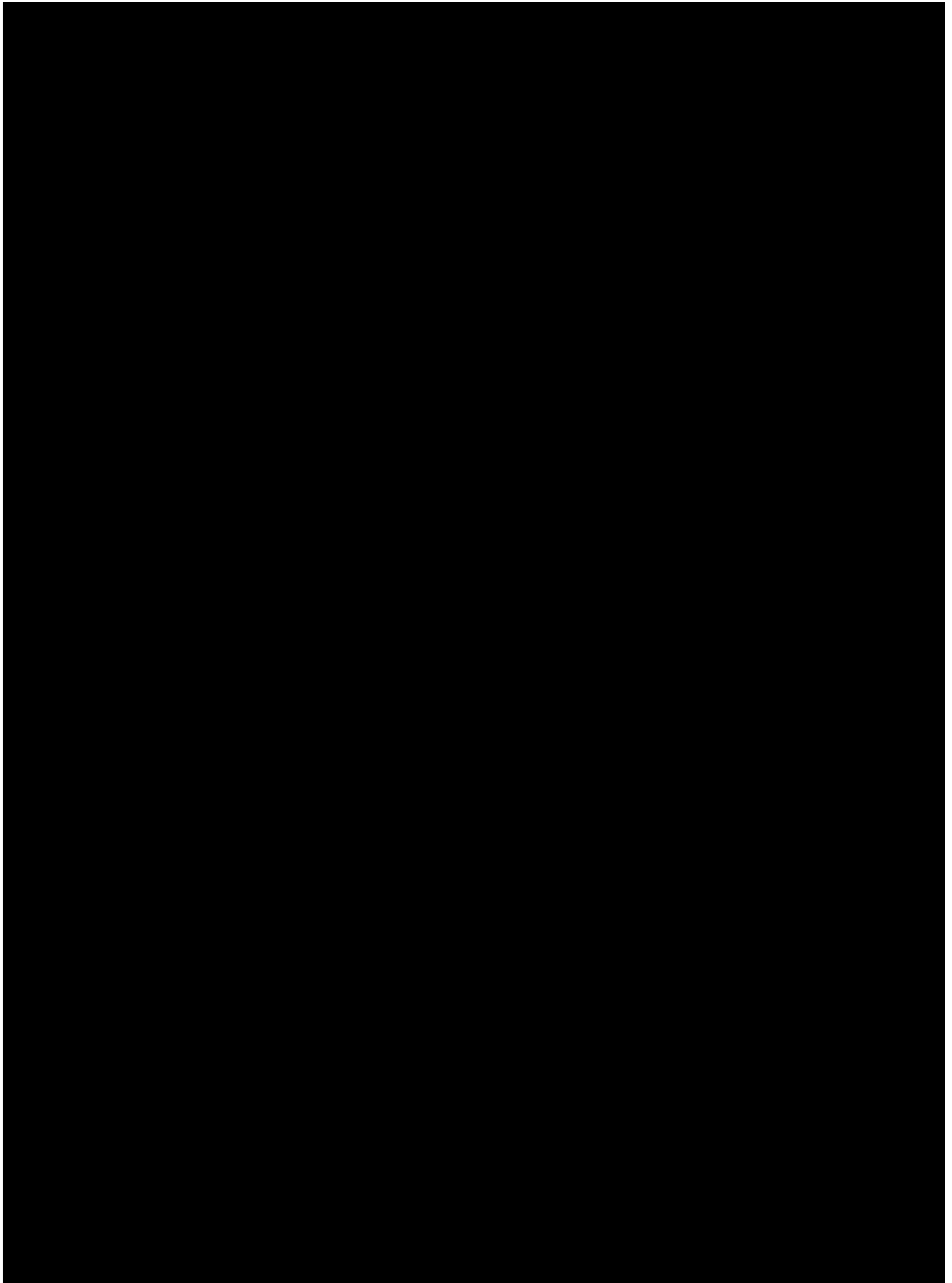
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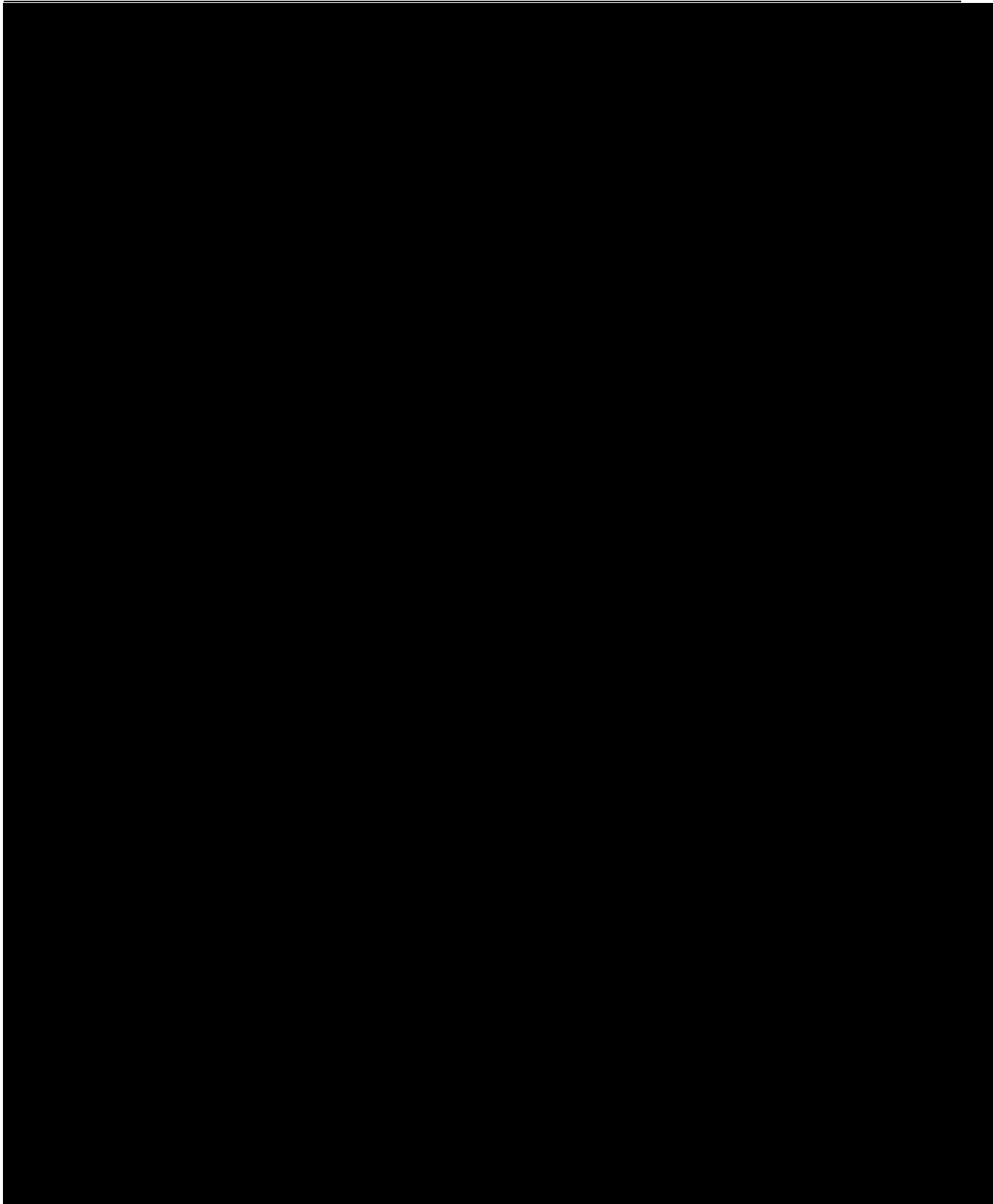
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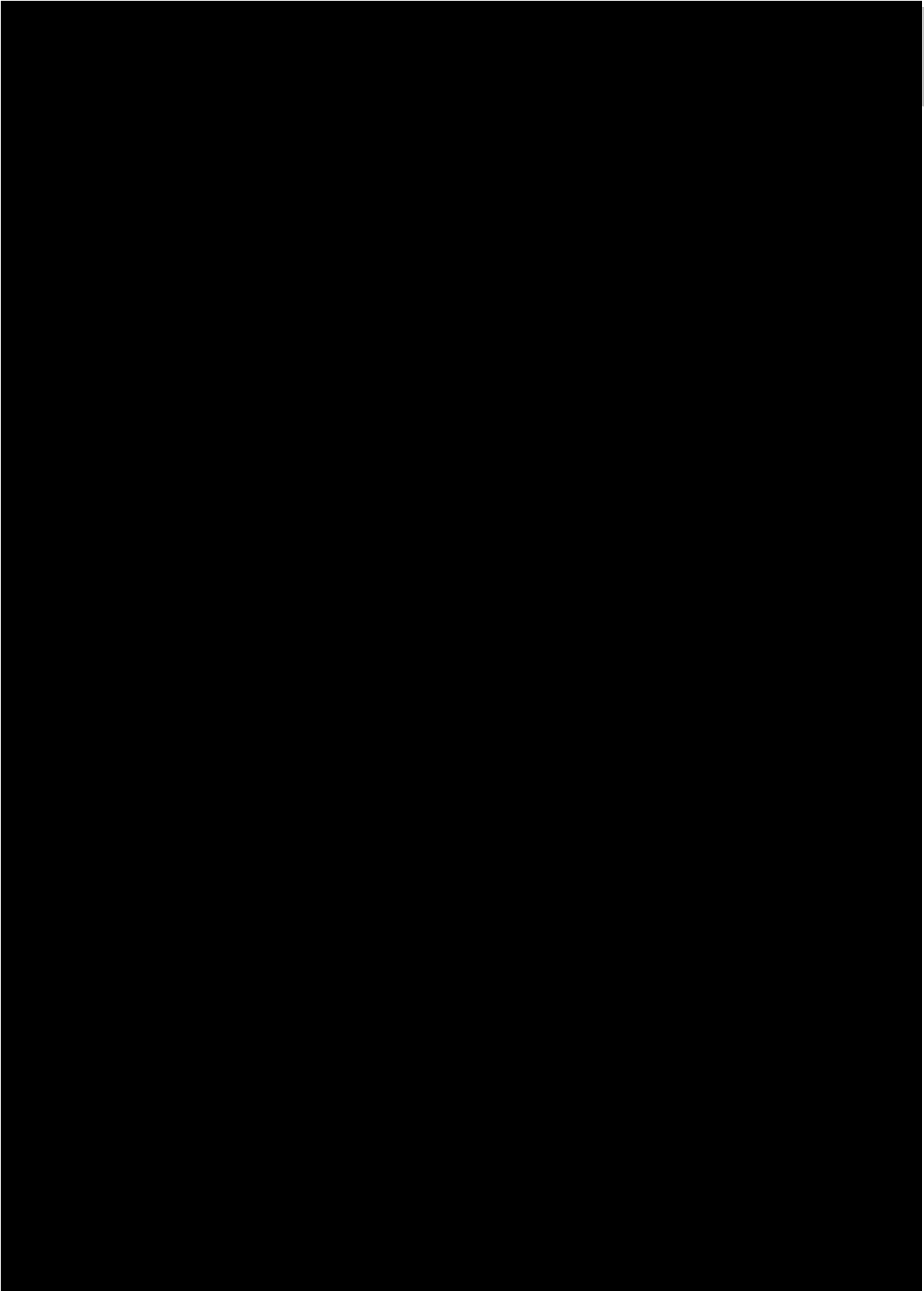
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Appendix E: Quick Response Guides

1. Natural Hazards (Storms, Flood, Cyclone, Bushfire, Heatwave, Earthquake, Tsunami)

Urgent notifications
<ul style="list-style-type: none"> • Establish liaison with State Disaster Coordination Group / Emergency Services, as required • Review impact / inundation mapping • Urgently advise employees in risk areas / relevant Area Managers • Evacuate/lockdown locations as needed • Advise control centres • Advise CE, CMT and relevant business units as needed • Consider emergency level - event level (1,2, or 3) and establish EMT • Initiate Alert to issue (broadcast radio message/ SMS / FFA) • Deliver safety brief / information as needed • Initiate Major event reporting
Employees / contractor considerations
<ul style="list-style-type: none"> • Monitor staffing in all locations and arrange for further support as required and as resources allow • Assess the impact / damage to operating sites and offices • Deploy employees to key installations (e.g. unmanned depots, warehouses) as required • Take reasonably practicable steps to ensure safety of field employees and contractors, including reinforcing safe working requirements • Check on safety and welfare of employees
Operational considerations
<ul style="list-style-type: none"> • Determine impact on customer and network • Assess the potential disruptions to supply • Review checklists and considerations for the specific event type • Review policies for specific event type – eg flood de-energisation, heat illness. • Confirm impact mapping (actual or potential) to determine • Assess the extent of any damage, outages, and any potential failure points • Assess means of dealing with outages and disruptions to restore supply • Liaise with Emergency Services (storm) or State Disaster Management Group (disaster) on requirements and operational constraints • Assess overall priorities for repair and restoration • Assess time, costs, requirements for repair and restoration • Assess difficulties in repair or restoration caused by the storm / disaster • Monitor crews – take reasonably practicable steps to ensure they are regularly rested and/or rotated during prolonged operations • Monitor EMT - take reasonably practicable steps to ensure they are regularly rested and/or rotated during prolonged operations • Provide support resources and equipment as directed • Liaise with State and Local Disaster Management and District Disaster Groups, and Queensland Fire and Emergency Service as is necessary. • Resource and liaise with the Control Room. • Ensure safety information is communicated to employees in impact area (eg evacuation of areas, lockdown, heat related issues) • Ensure communication lines are in place between EMT, Corporate Communications, Network Operations, and depots. • Communicate with Network Operations on the state of the network belonging to the impact area.

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Natural Hazards (Storm, Flood, Cyclone, Bushfire, Heatwave, Earthquake, Tsunami)

- Consider positioning generators to pre-determined connection points, including fuel and associated logistics such as security services
- Consider sourcing additional staffing from other regions to assist with response or fatigue rotation (incl staging areas)
- Ensure all items on Flood Operational Plans are being carried out and the resources are available to deal with the threat of flood.
- Arrange external resources such as contractors, helicopters, boats etc.
- Monitor river heights using data from BOM and forecast future resource requirements.
- Arrange for vehicles and equipment to be positioned to suit anticipated river levels.
- Consider street patrols to identify areas of disconnection if energised circuits are within required clearances to flood waters.
- In conjunction with the EMT, Restoration Planner, Network Operations and Customer and Market Operations, ensure that premises are isolated in a timely manner before water reaches wiring or switchboards.
- In conjunction with the EMT, Restoration Planner, Network Operations and Customer and Market Operations, arrange for disconnects and reconnects and removal of meters.
- Review Flood Operational Plans for impact and switching areas.
- Monitor river heights using data from BOM and forecast future resource requirements.
- Arrange for vehicles and equipment to be positioned to suit flood levels.
- If possible, in conjunction with Network Operations and Customer and Market Operations, ensure that premises are isolated in a timely manner before water reaches wiring or switchboards.
- If possible, in conjunction with Network Operations and Customer and Market Operations, arrange for disconnects and reconnects and removal of meters.
- Consider street patrols to identify areas of disconnection if energised circuits are within required clearances to flood waters.

Corporate considerations

- Assess any direct media interest in business and mobilise to meet that interest where appropriate
- Assess any potential issues which could damage corporate image
- Assess the costs of repair / restoration / compensation / clean up
- Assess probable impact on cash flows, revenues, and profitability
- Assess potential insurance implications and claims
- Assess possible litigation against the Company; directly or indirectly
- Monitor records and confirm that accurate record keeping is occurring and that personnel are following established processes that trap records. This includes switching sheet items times; FFA jobs are being accepted and closed correctly by field employees, etc.

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2. Major Quality/Loss of Supply (Damage / LOR2-3 / UFLS)

Urgent notifications
<ul style="list-style-type: none"> • Arrange for notification of affected parties (e.g. due to voltage dips) and high-level liaison as required • Arrange for responsible officers to be notified as appropriate • Advise CE, CMT and relevant business units as needed • Consider escalation of emergency level - Level (1,2, or 3) and establish EMT • Initiate liaison with Treasury, DNRME and other departments as required • Initiate Major event reporting • Establish contact with Powerlink for any load related actions (eg Lack of Reserve [LOR 2or 3], load shedding)
Public considerations
<ul style="list-style-type: none"> • Consider threat to public safety (if any) and treat as a top priority
Employees / contractor considerations
<ul style="list-style-type: none"> • Monitor staffing in key locations (e.g. control room) and arrange for further support as required and as resources allow • Take reasonably practicable steps to ensure safety of field employees and contractors, including reinforcing safe working requirements • Provide updated information to all employees regarding the emergency as appropriate
Operational considerations
<ul style="list-style-type: none"> • Determine impact on customer and network • Assess the potential disruptions to supply • Identify cause of supply problems • Review checklists for specific event type • Review policies for specific event type – eg LOR processes, UFLS • Assess need for public warnings to be issued and by whom • Assess means of restoring supply to within specifications • Assess the impact on operating sites and other operators • Liaise with regulators and other participants on best course of action • Review Load Schedules • Assess time, costs, requirements for repair and restoration • Review and minimise impact on customers if there is a concurrent weather emergency
Corporate considerations
<ul style="list-style-type: none"> • Assess media interest and mobilise resources to satisfy that interest where appropriate • Assess the community reaction; locally, regionally, and nationally • Assess any potential damage to corporate image • Assess impact to market share and potential for consumer backlash • Assess the costs of repair / restoration / compensation / clean up • Assess probable impact on cash flows, revenues, and profitability • Assess potential insurance implications and claims • Assess possible litigation against the Company; directly or indirectly • Assess any liabilities on Directors, officers and/or employees • Review Retail impacts
Regulatory considerations
<ul style="list-style-type: none"> • Assess any breaches of licence conditions or potential charges or fines • Assess any potential impact on future regulatory conditions

Major Quality of Supply

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3. Major Network Emergencies - Other

Urgent notifications
<ul style="list-style-type: none"> • Arrange for notification of affected participants and high-level liaison as required • Arrange for responsible officers to be notified as appropriate • Advise CE, CMT and relevant business units as needed • Initiate liaison with Treasury, DNRME and other departments as required • Initiate Major event reporting • Establish liaison with State Disaster Coordination Group / Emergency Services, as required • Consider emergency level - event level (1,2, or 3) and establish EMT • Confirm Lead roles based on event type – eg Asset Failure (engineering), Cyber/Systems (Digital), Pandemic (HSE), Facilities (Services) • Initiate Alert to issue (broadcast radio message/ SMS / FFA)
Employees / contractor considerations
<ul style="list-style-type: none"> • Monitor staffing in key locations (e.g. control room, Customer Operations) and arrange for further support as required and as resources allow • Take reasonably practicable steps to ensure safety of field employees and contractors, including reinforcing safe working requirements • Provide updated information to all employees regarding the emergency as appropriate • Consider fatigue impacts
Operational considerations
<ul style="list-style-type: none"> • Determine impact on customer and network • Assess the potential disruptions to supply • Identify cause of supply problems • Review checklists for specific event type • Review policies for specific event type – eg cyber, pandemic • Assess the extent of any outages and further potential disruptions to supply • Assess means of dealing with outages and disruptions • Assess the impact on Network operating sites and other industry participants, life support, major customers • Assess time, costs, requirements for repair and restoration • Liaise with AEMO and other participants on best course of action to restore supply
Corporate considerations
<ul style="list-style-type: none"> • Assess media interest and mobilise resources to satisfy that interest where appropriate • Assess the community reaction; locally, regionally, and nationally • Assess any potential damage to corporate image • Assess impact on key customers and potential for consumer backlash • Assess the costs of repair / restoration / compensation / clean up • Assess probable impact on cash flows, revenues, and profitability • Assess potential insurance implications and claims • Assess possible litigation against the Company; directly or indirectly • Assess any liabilities on Directors, officers and/or employee
Regulatory considerations
<ul style="list-style-type: none"> • Assess any breaches of licence conditions or potential charges or fines • Assess any potential impact on future regulatory conditions

Major Network Emergencies

Appendix F: DEFINITIONS, ABBREVIATIONS AND ACRONYMS

AIIMS	Australasian Inter-Service Incident Management System. AIIMS is based on the principles of management by objectives, functional management, and span of control. It is a nationally recognised system of incident management for the nation's fire and emergency service agencies.
AM	Area Manager – Field Leadership role responsible for geographical areas within Northern, Southern & South Eastern regions
Assessment	Survey of a real or potential disaster, to estimate actual or expected damages, and to recommend prevention, preparedness, and response measures.
BAU	Business As Usual – resources and effort are focused on the planned and budgeted work required to operate and maintain electricity infrastructure, its operational functions, and capabilities.
Damage Assessment	Field activity whereby crews visually inspect network and record defects needing rectification.
DDMG	District Disaster Management Group
Disaster	A disaster is a serious disruption in a community, caused by the impact of an event, that requires a significant coordinated response by the State and other entities to help the community recover from the disruption (<i>definition: Disaster Management Act 2003, Section 13</i>). NOTE: a disaster can only be declared by a Disaster District or the State Government with the specific approval of the responsible Minister.
Disaster Management	Disaster management means arrangements about managing the potential adverse effects of an event, including, for example, arrangements for mitigating, preventing, preparing for, responding to, and recovering from a disaster (<i>definition: Disaster Management Act 2003</i>).
Disruption Events	Events that disrupt the normal functions of businesses, the economy and/or communities and include those that are man-made (e.g. terrorist attack, bomb threat) and natural (e.g. storm, cyclone, fire, flood, network or non-network asset failure, influenza pandemic).
Division	A Division is a geographical area under the control of one Division Coordinator in the response and recovery effort following a disruptive event. A Division might be a relatively small geographic area if the event has resulted in significant asset damage or it might be a large geographic area if the damage is lesser but more widespread. The determination of Division and boundaries will be made by the Emergency Manager and will consider the employees required to recover assets and services. A Division may have multiple Sectors to allocate the restoration activities to field crews (See Sector).
Emergency	<p>A sudden and unexpected event that disrupts the normal operating functions, capabilities, resource and/or people of the organisation and requires an immediate response to prevent escalation of its scale or severity.</p> <p>For example, but not restricted to:</p> <ul style="list-style-type: none">• Localised electricity network damage, or potential damage, due to fire, flood, storm, or accident etc.

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- Loss of operating facilities and/ or resources.
- Loss of ICT operating systems.

EMT	Emergency Management Team
ESP	Emergency Support Plan - gives guidance to how business units will provide support for the restoration of capabilities
FFA	Field Force Automation – handheld devices used by field crews for the receipt of tasks and completion of work/forms and access to reference materials
Flooding-Major	In addition to the criteria for moderate flooding, extensive rural areas and/or urban areas are inundated. Properties and towns are likely to be isolated and major traffic routes likely to be closed. Evacuation of people from flood affected areas may be required
Flooding-Minor	Causes inconvenience. Low-lying areas next to watercourses are inundated which may require the removal of stock and equipment. Minor roads may be closed, and low-level bridges submerged.
Flooding-Moderate	In addition to the criteria for minor flooding, the evacuation of some houses may be required. Main traffic routes may be covered. The area of inundation is substantial in rural areas requiring the removal of stock.
Flooding-Q100	Refers to a flood level or peak that has a one in a hundred, or 1%, chance of being equaled or exceeded in any year (also referred to as annual exceedance probability)
GeoConOps	ESRI based application giving situational awareness for restoration planning, Damage assessment packaging and a current state Dashboard
Hazard	An event, object or scenario that has the potential to cause harm to people and/or cause damage to property or assets.
LDMG	Local Disaster Management Group
Level 1 Event	Events are routine incidents that are managed as part of normal business operations and are not managed through emergency, crisis, or business continuity management arrangements.
Level 2 Event	These events are the first level of non-routine events. They are more complex either in size, resources, or risk; and are events that are beyond the capability of normal business operations and require specific command and control arrangements. E.g. Impacts to EQL's normal operations may be substantial but may be relatively foreseeable and contained.
Level 3 Event	These events are the most significant. They require substantial effort and resources across different regions / areas of EQL and have the potential to substantially disrupt business operations or significantly harm EQL's reputation. These emergencies require specific command and control arrangements and resourcing to a much greater degree than a level 2 event.
LiDAR	Light Detection and Ranging, is a remote sensing method that uses light in the form of a pulsed laser to measure ranges.
MATES	Mates is an automated employees call out system to efficiently call in employees in response to a Level 2 Emergency Event in the South East

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NOMAD	Mobile substation capable of injecting high voltage to large areas of the network.
ODIN	Outage Disaster Initiation on Network - The ODIN is a disaster response tracking and management automation system to facilitate logistical management of resources during and after the deployments of employees in response to a disaster event.
OCC	Operations Control Centre – Located in Brisbane, Rockhampton, and Townsville
Pegasus	Mobile generator capable of injecting high voltage into a select area of the network
PowerOn	The network monitoring system (NMS) /database
Resources	Includes employees, any vehicle, vessel, aircraft, plant, apparatus, implement, earthmoving, construction or other equipment of any kind or any means of supplying want or need.
Restoration plan	Prioritised feeder section plan to restore the network
Risk	Potential impact on objectives (either losses or opportunities) due to a particular event, hazard, or scenario. Risk is the product of likelihood and consequence.
SDCC	State Disaster Coordination Centre
SDMG	State Disaster Management Group
Sector	A Sector is an allocated area within a Division. This may be assigned to a specific field crew to perform restoration activities. Eg a Distribution feeder, feeder section or a Substation.
Significant Incident	Any occurrence affecting an EQL response and the community – including severe injury or loss of life involving EQL employees or the public, loss or damage affecting EQL or community property, and related matters involving EQL which are likely to attract media or public response.
Summer Preparedness Working Party	A group established to outwork a detailed action plan to prepare the business for the Summer Storm Season. Includes representation from across EQL.

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