One of the fracture surfaces from the coupling was sectioned and prepared for examination using the Scanning Electron Microscope (SEM). The fracture appeared to have originated in the area adjacent to the spring plunger. The fracture progressed around and through the coupling. SEM examination revealed areas of cup cone topography around the majority of the fracture surface. Where the coupling finally broke, areas of shear overload were present (Figure 5). No other anomalies were noted on the fracture surface which might have contributed to the fracture.

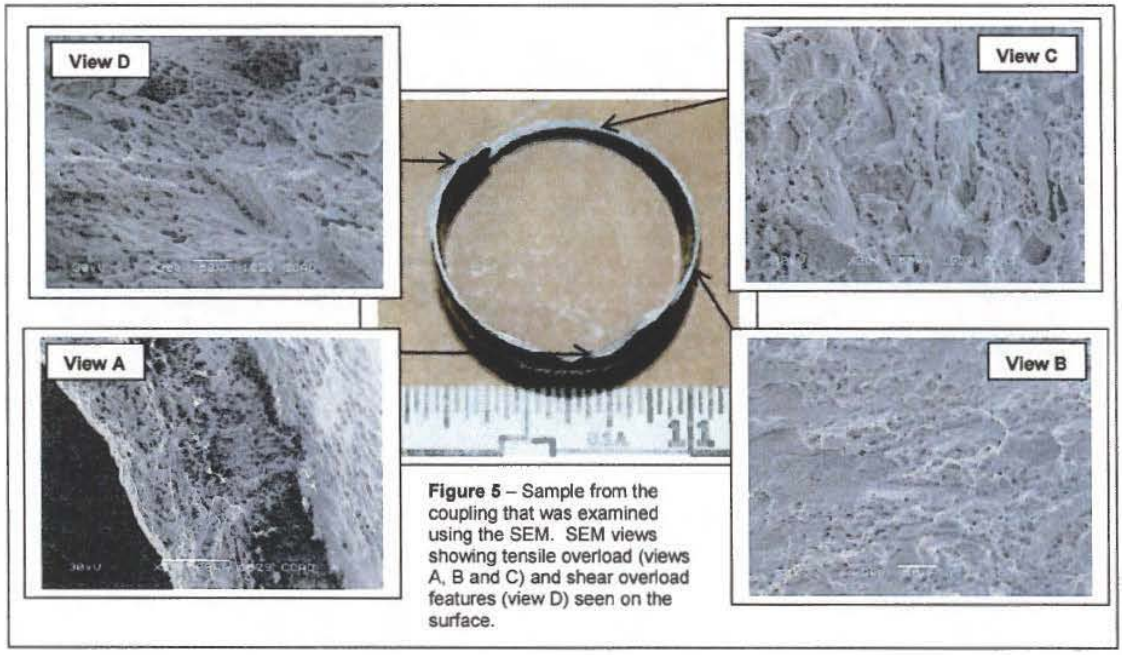
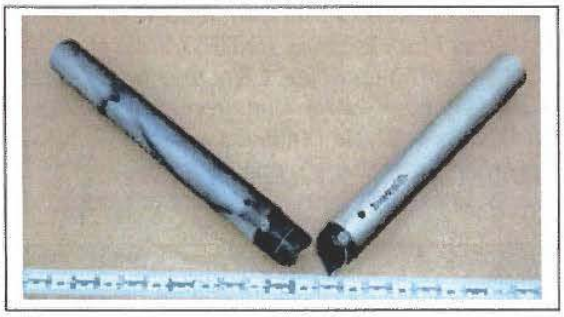


Figure 5 – Sample from the coupling that was examined using the SEM. SEM views showing tensile overload (views A, B and C) and shear overload features (view D) seen on the surface.

4. A fracture occurred at the coupling (4D00253G01) between fin tip pole 4 (4D00368H06) and fin tip pole 5 (4D00368H07). The fracture surface exhibited shear lips around the entire circumference of the tube. The fracture travelled around the weld bead that holds the spring plunger. Dirt deposits were present on the inner diameter of the coupling. There were no signs of corrosion around the area of fracture (Figure 6).



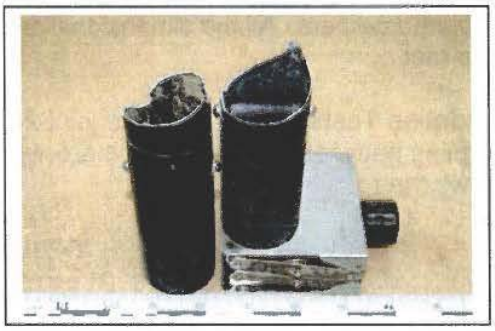
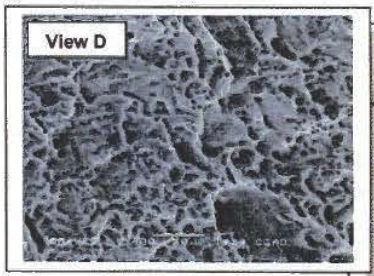
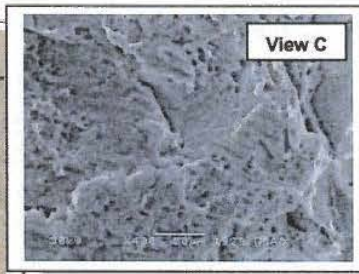
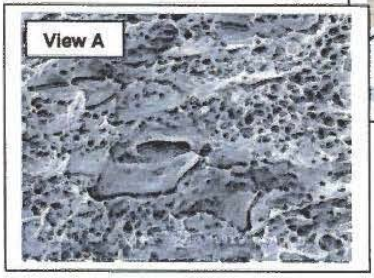


Figure 6 - Overall view of the coupling between fin tip pole 4 and fin tip pole 5 showing the location of the fracture (top left, shown at ~0.12X). Close-up views showing the fracture (top right, shown at ~0.75X and bottom right, shown at ~0.37X).

One of the fracture surfaces from the coupling was sectioned and prepared for examination using the Scanning Electron Microscope (SEM). The fracture appeared to have originated in the area adjacent to the spring plunger. The fracture progressed around and through the coupling. SEM examination revealed areas of cup cone topography around the majority of the fracture surface. Where the coupling finally broke, areas of shear overload were present (Figure 7). No other anomalies were noted on the fracture surface which might have contributed to the fracture.







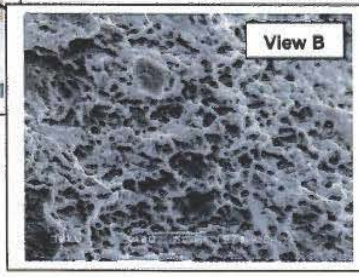


Figure 7 – Sample from the coupling that was examined using the SEM. SEM views showing tensile overload (views A, B and C) and shear overload features (view D) seen on the surface.

Material Analysis- All the fin tip pole assembly components that exhibited fractures were analyzed for material composition using X-ray Fluorescence ((XRF). XRF analysis revealed that fin tip pole joint 2 and both couplings from fin tip poles 1 & 2 and fin tip poles 4 & 5 were aluminum based, with magnesium, silicon, copper, chromium, iron, manganese and zinc present as alloying constituents. Quantitative analysis matched with the general requirements of a 6061 aluminum alloy. The engineering drawing's call out for 6061-T6 Aluminum as the required material is vague. It should specify 6061-T6 Aluminum per a known specification (i.e., SAE AMS 2770).

The outer diameter, inner diameter and wall thickness dimensions of the fin tip pole joint 2, and both couplings from fin tip poles 1 & 2 and fin tip poles 4 & 5 were obtained using calibrated calipers. All the dimensional requirements provided by the engineering drawings were met.

Hardness Tests- The fin tip pole joint 2, coupling between pole sections 1 & 2 and the coupling between pole sections 4 & 5 were subjected to hardness testing. Table 1 shows the results of the testing.

TABLE 1

	Hardness Rockwell "15T"
Fin tip pole joint 2	80.5
Coupling – Poles 1 & 2	80.7
Coupling – Poles 4 & 5	81.2

The engineering drawing did not specify hardness requirements for the components of the fin tip pole assembly. AMS 2658C was used as a guide to determine if the components met hardness requirements. Table 1 provides hardness and conductivity acceptance values for aluminum alloys. The requirement for 6061 in the T6 condition is 78.0 Hardness Rockwell scale "15T" minimum. The values obtained on the tested samples met this requirement.

Metallographic Examination- Mounted cross sections of the fin tip pole joint 2 and both couplings were used for metallographic examination. Examination up to 800X did not find any discontinuities within the microstructure that could have contributed to the failure. The microstructures were judged to be normal for 6061 in the T6 condition (Figure 8).

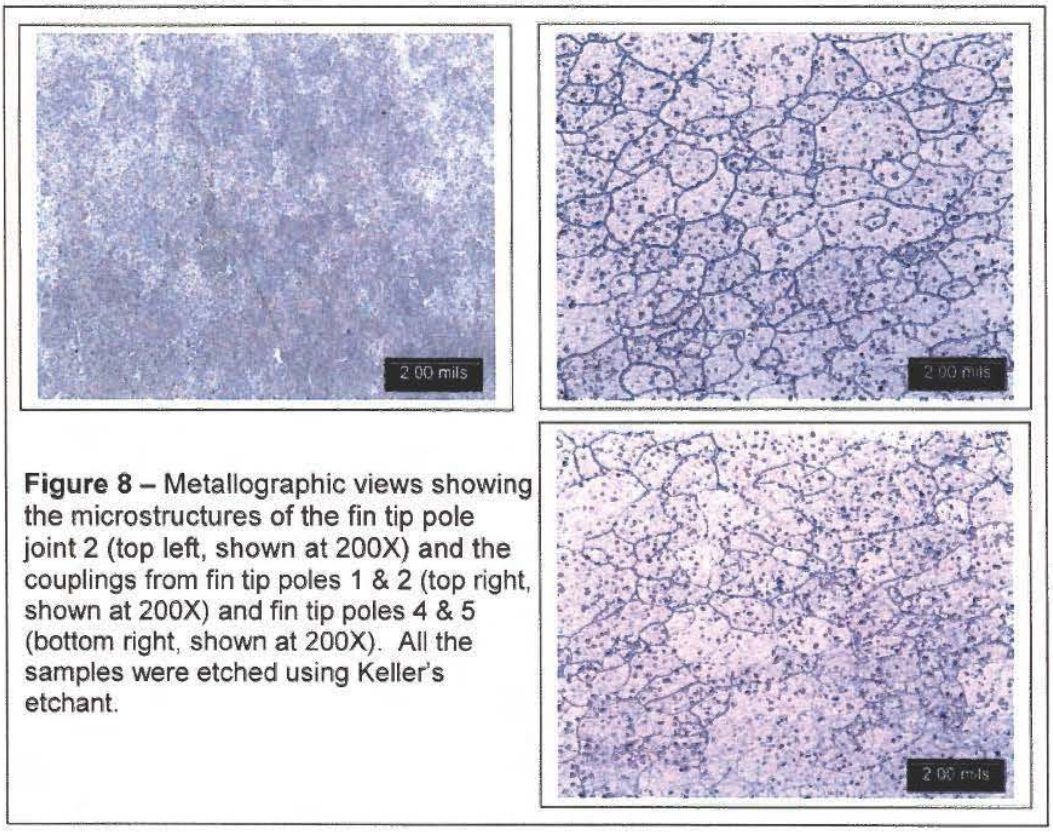
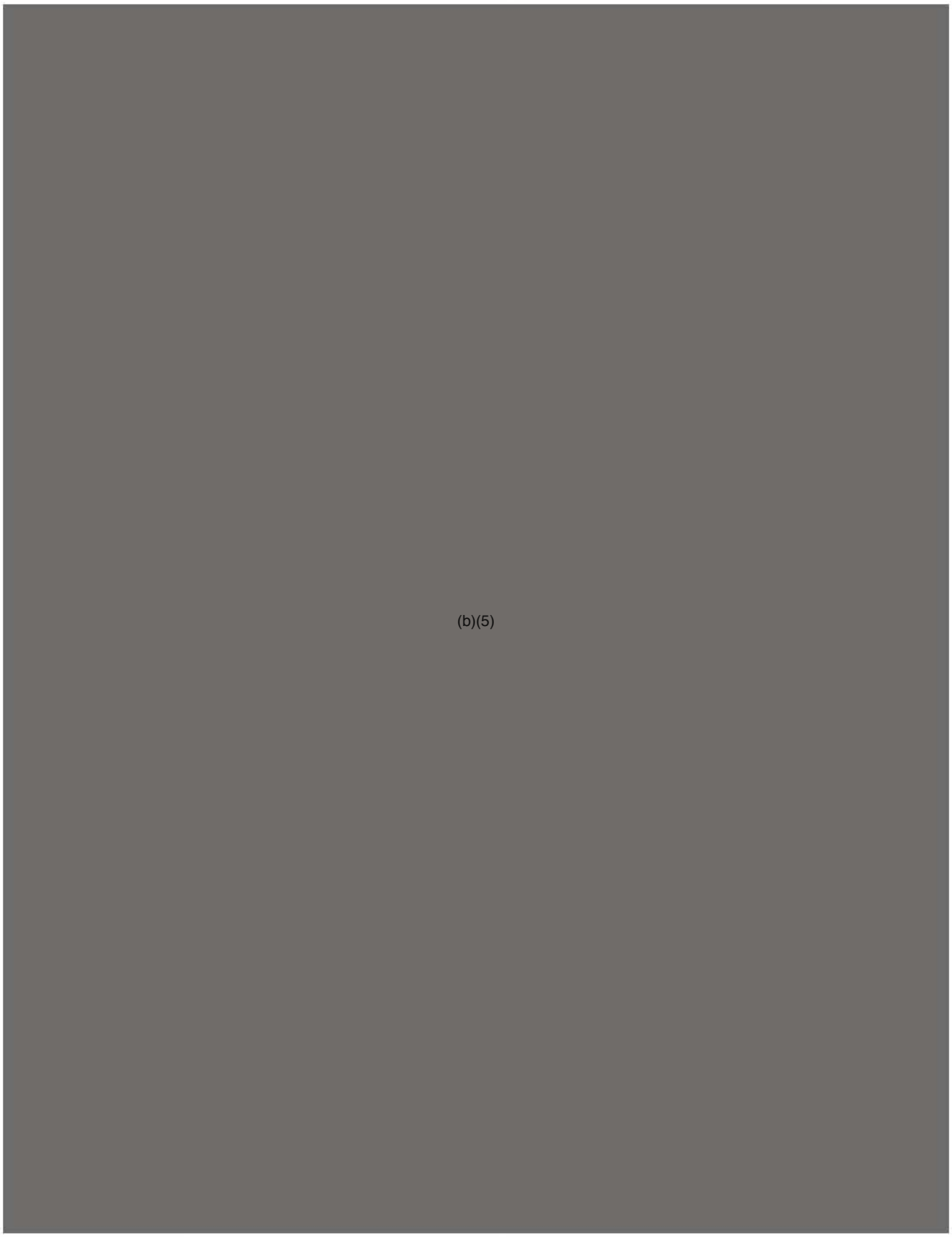


Figure 8 – Metallographic views showing the microstructures of the fin tip pole joint 2 (top left, shown at 200X) and the couplings from fin tip poles 1 & 2 (top right, shown at 200X) and fin tip poles 4 & 5 (bottom right, shown at 200X). All the samples were etched using Keller's etchant.

All parts were returned to the AIB investigator.

NATICK LABS Field Investigation Report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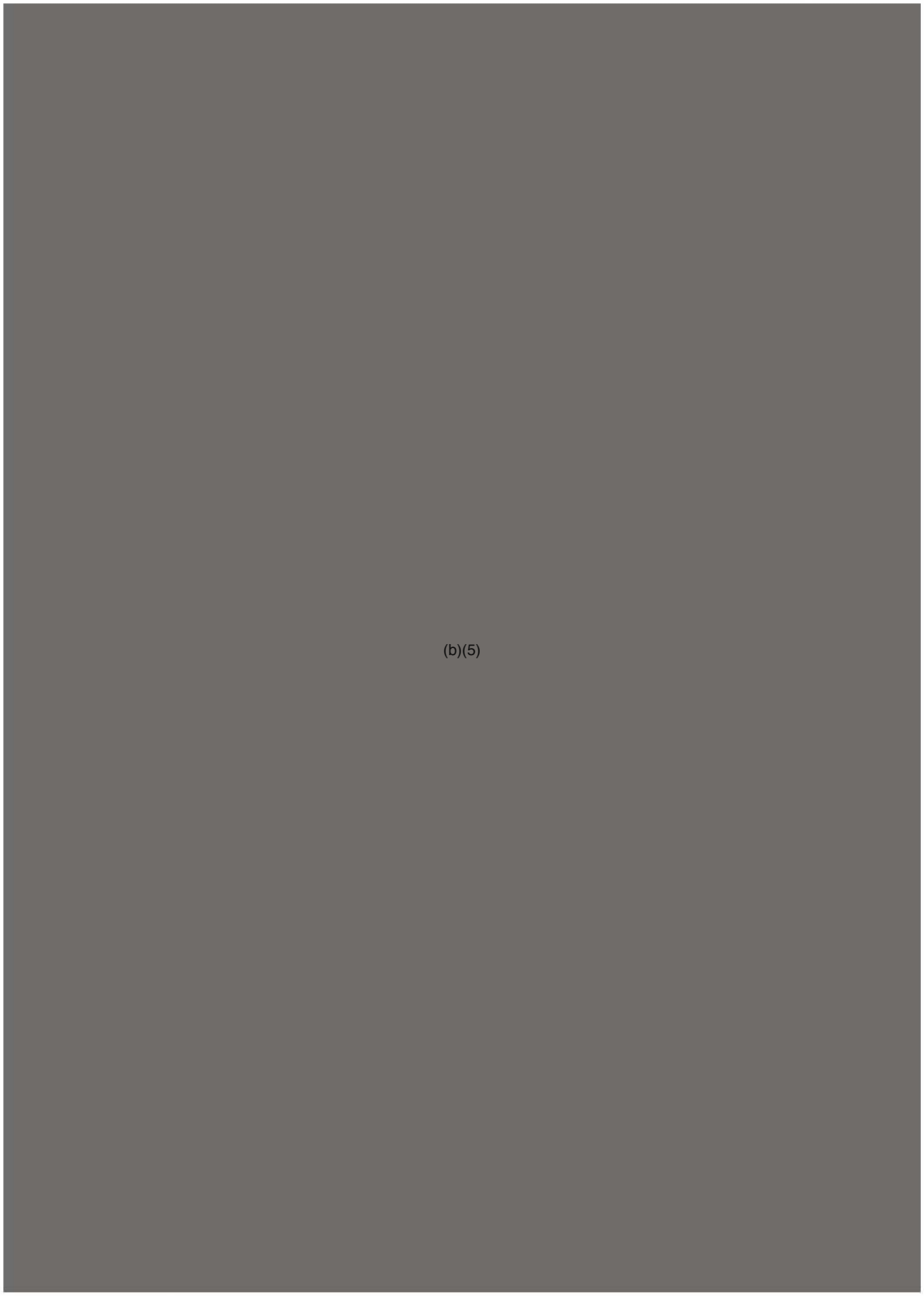
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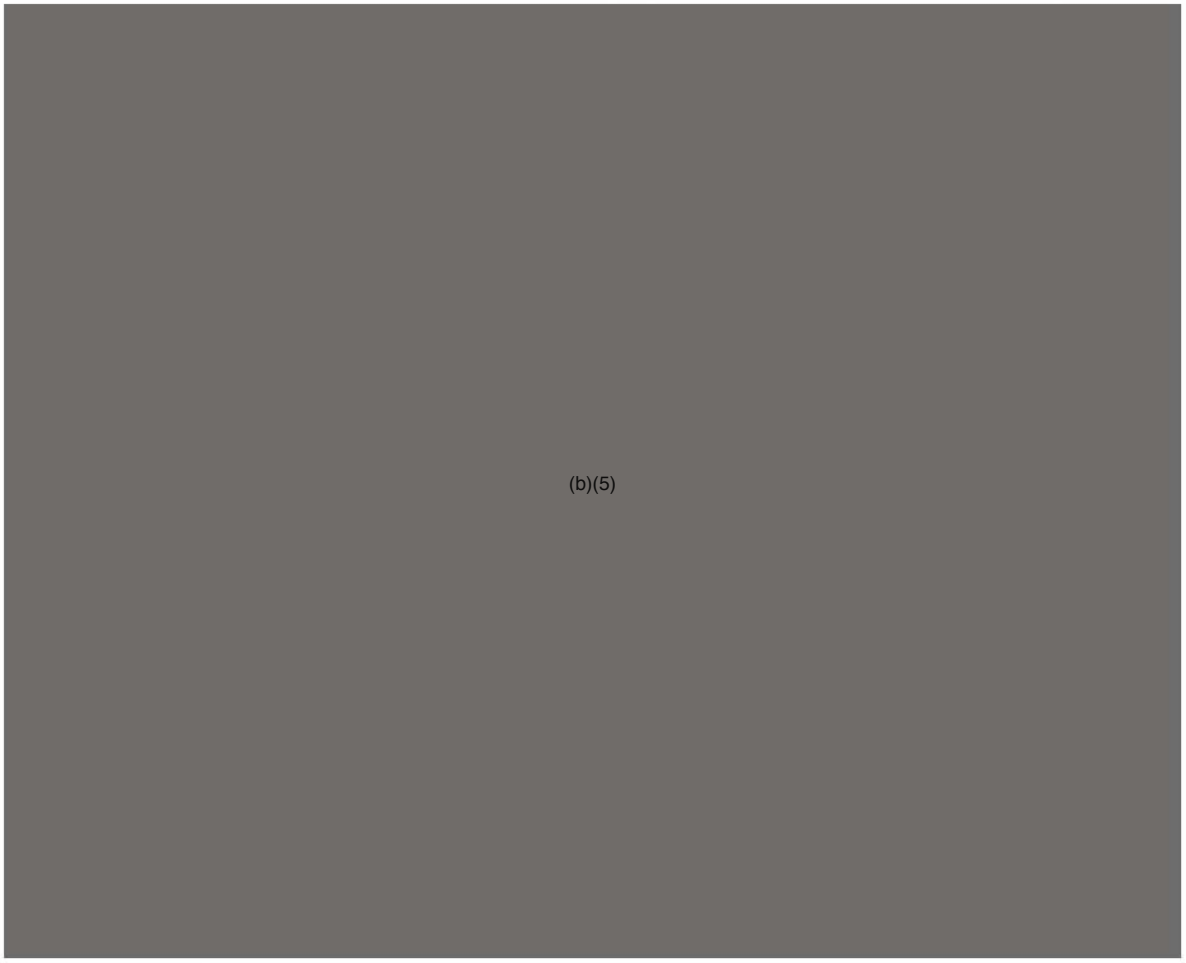
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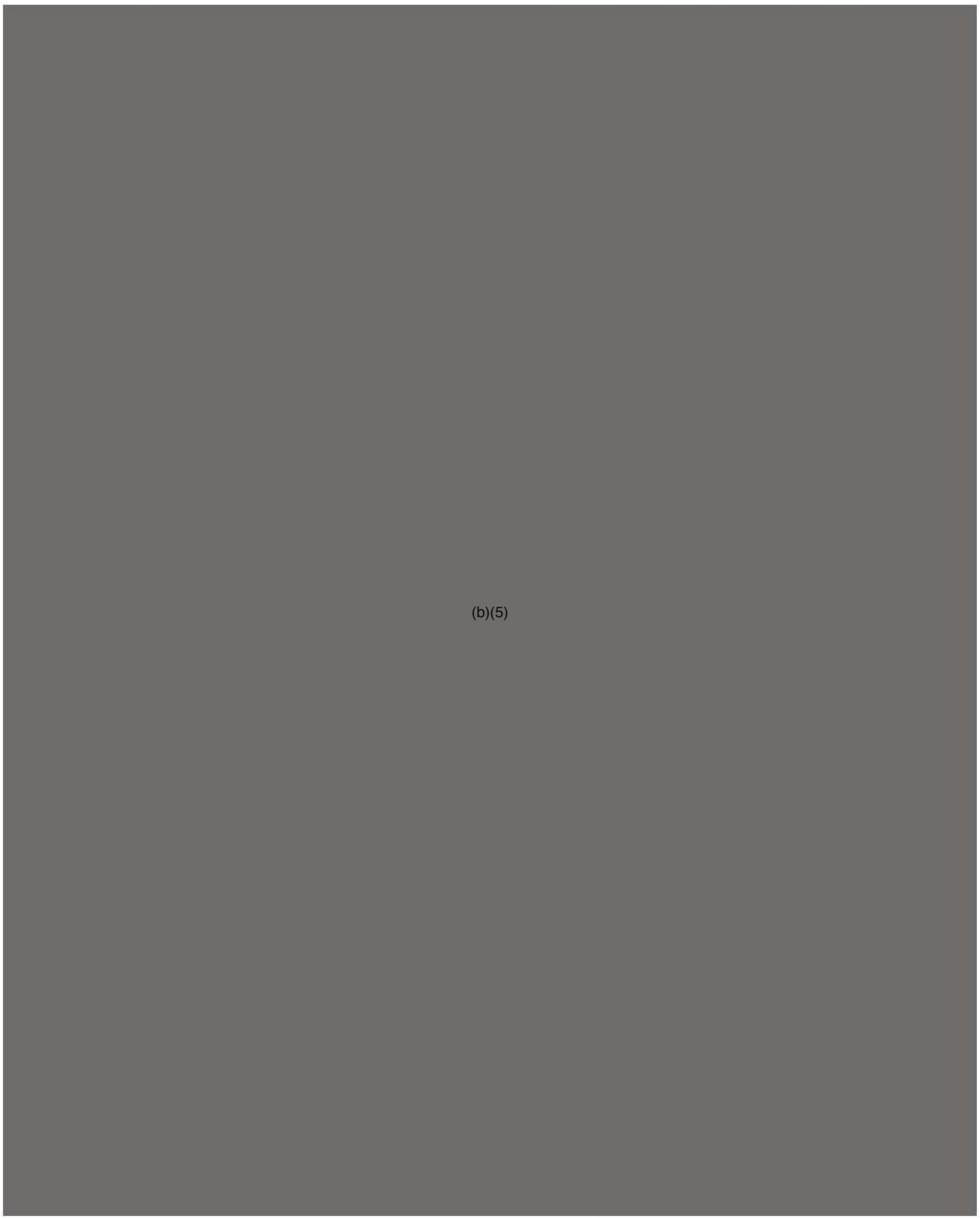
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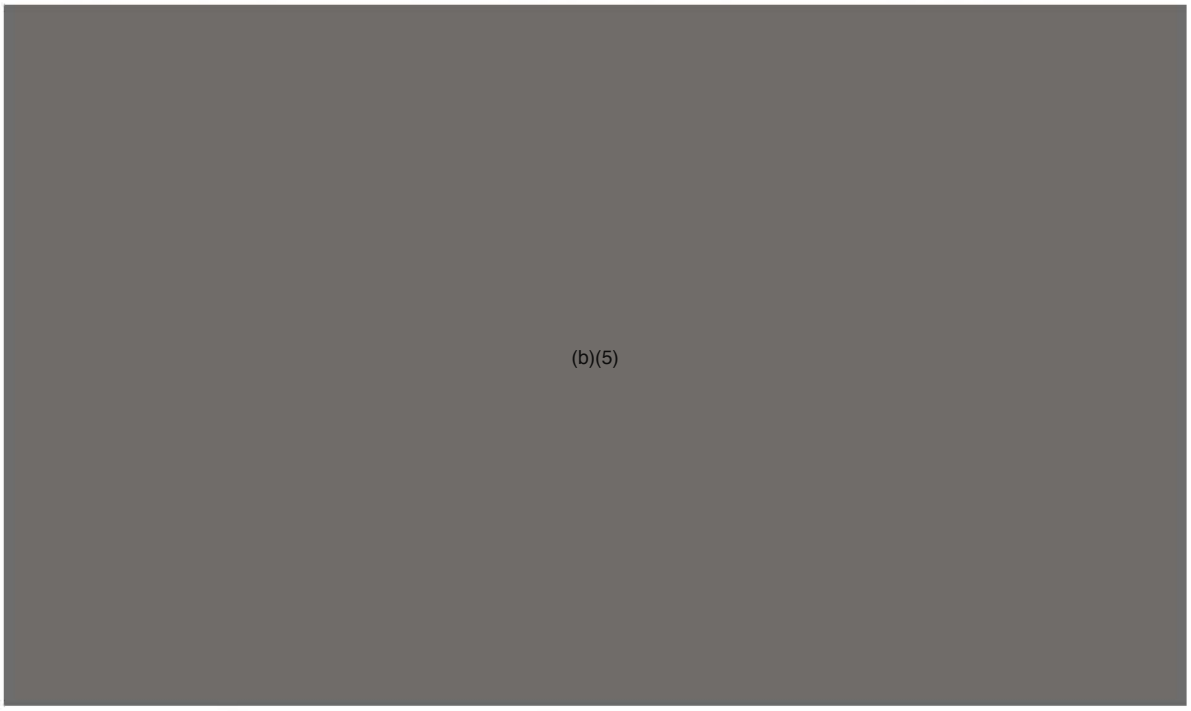
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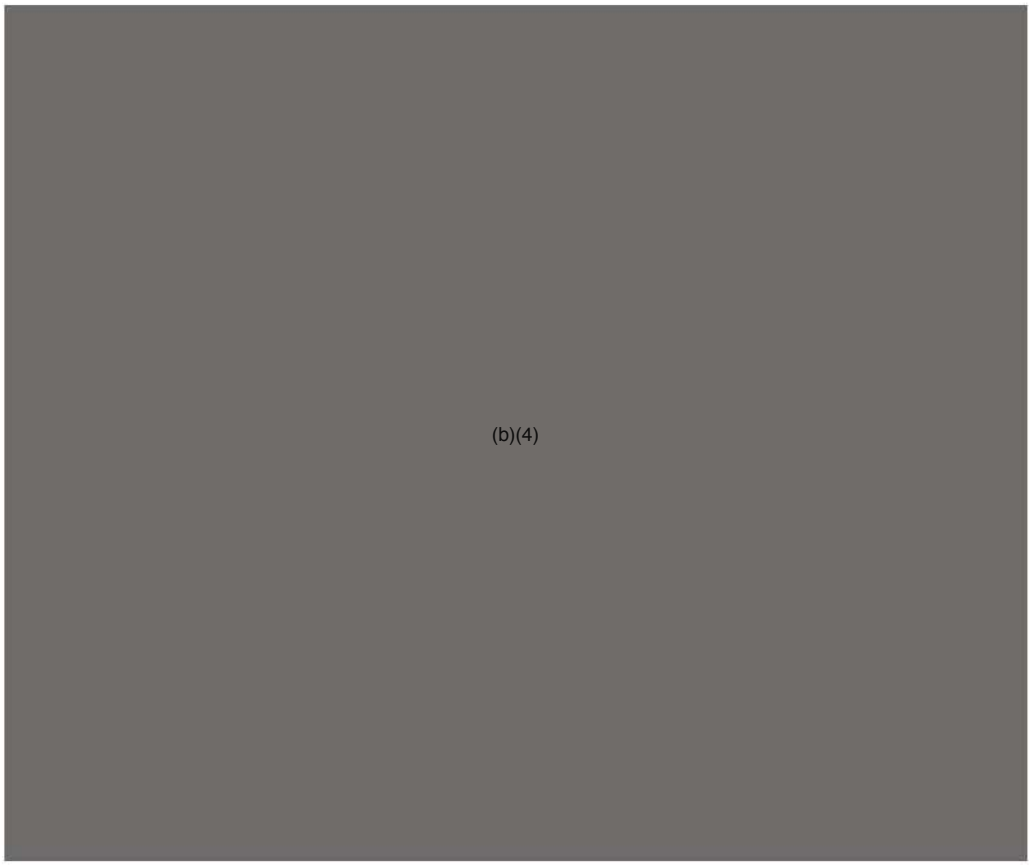
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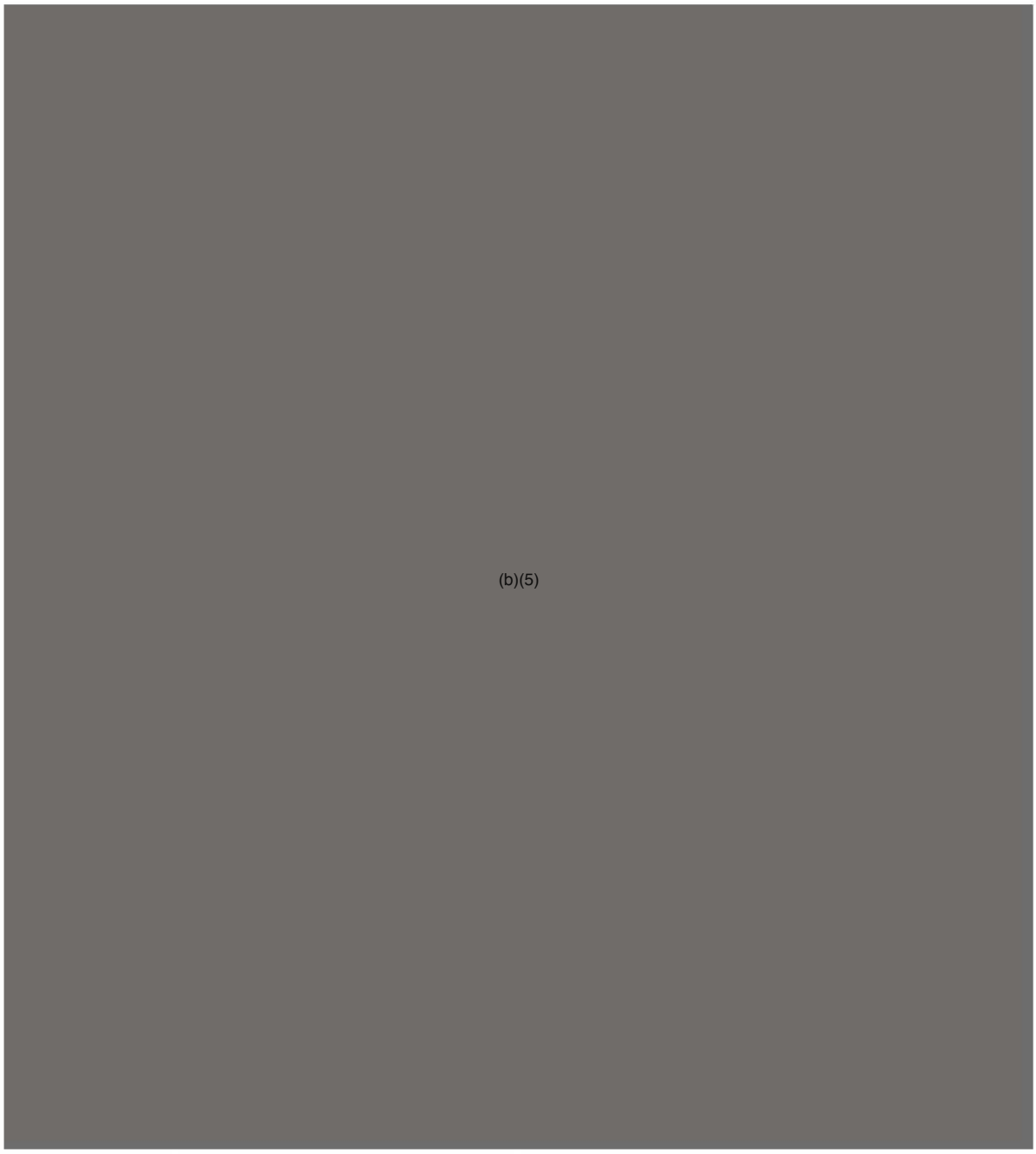
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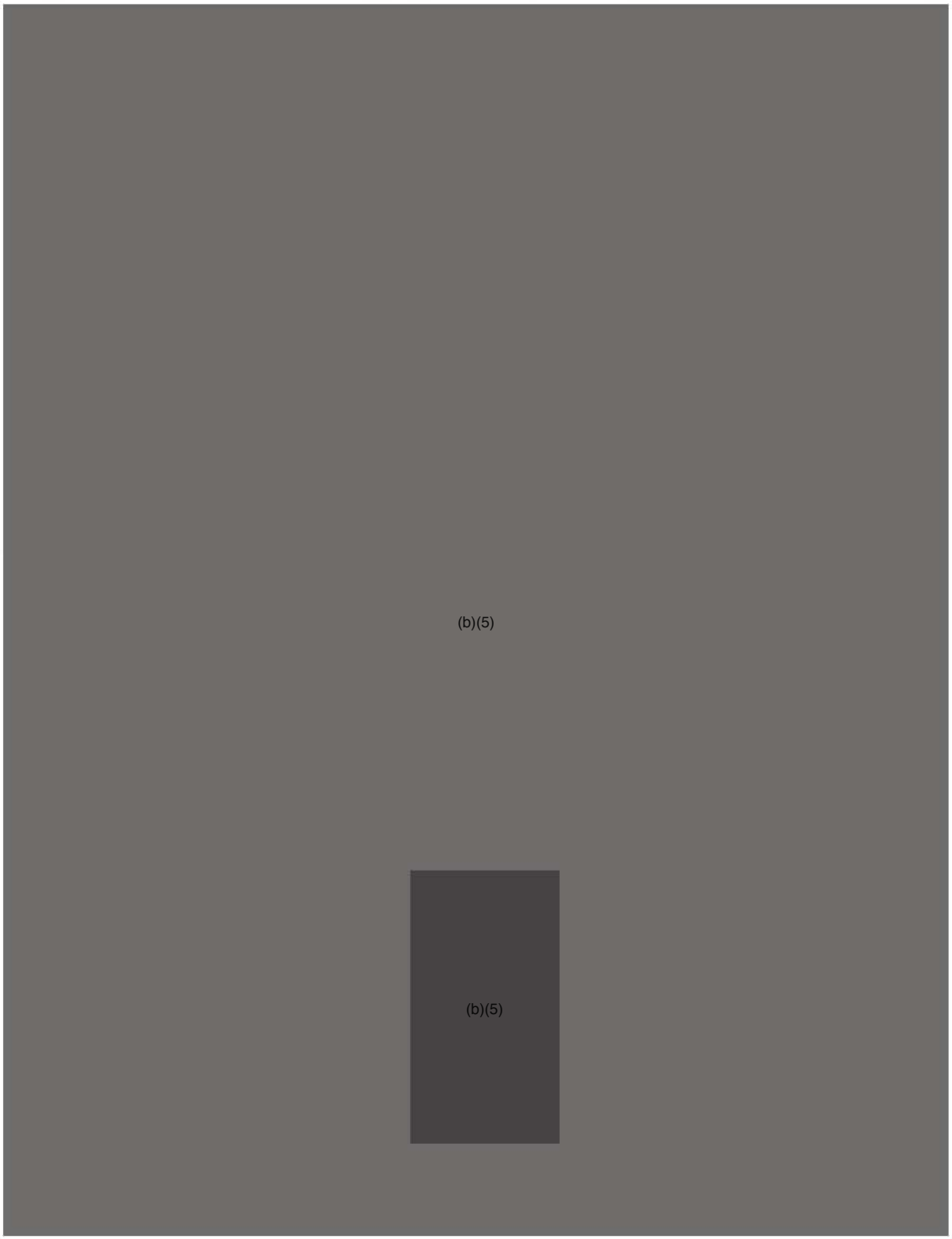
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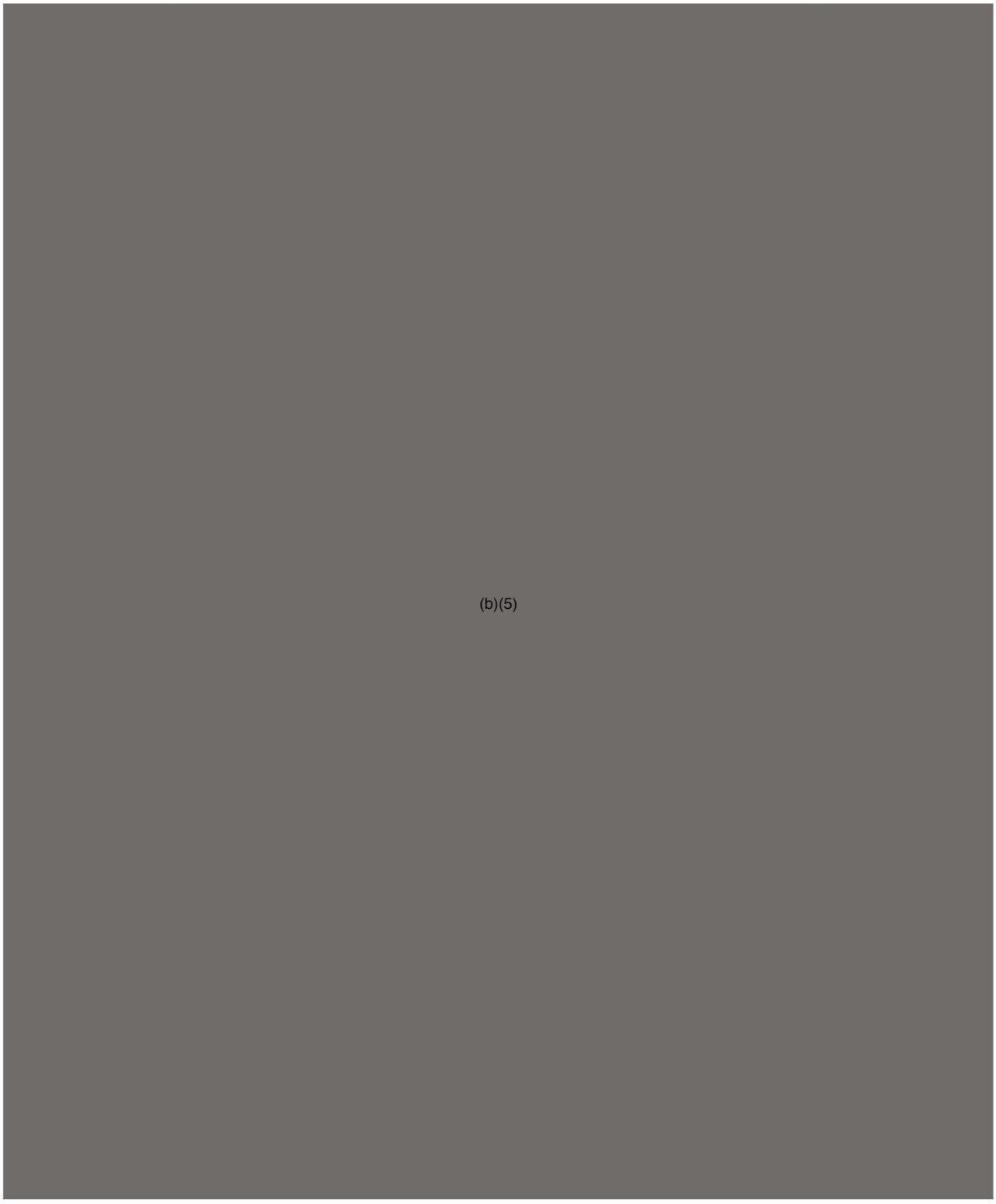
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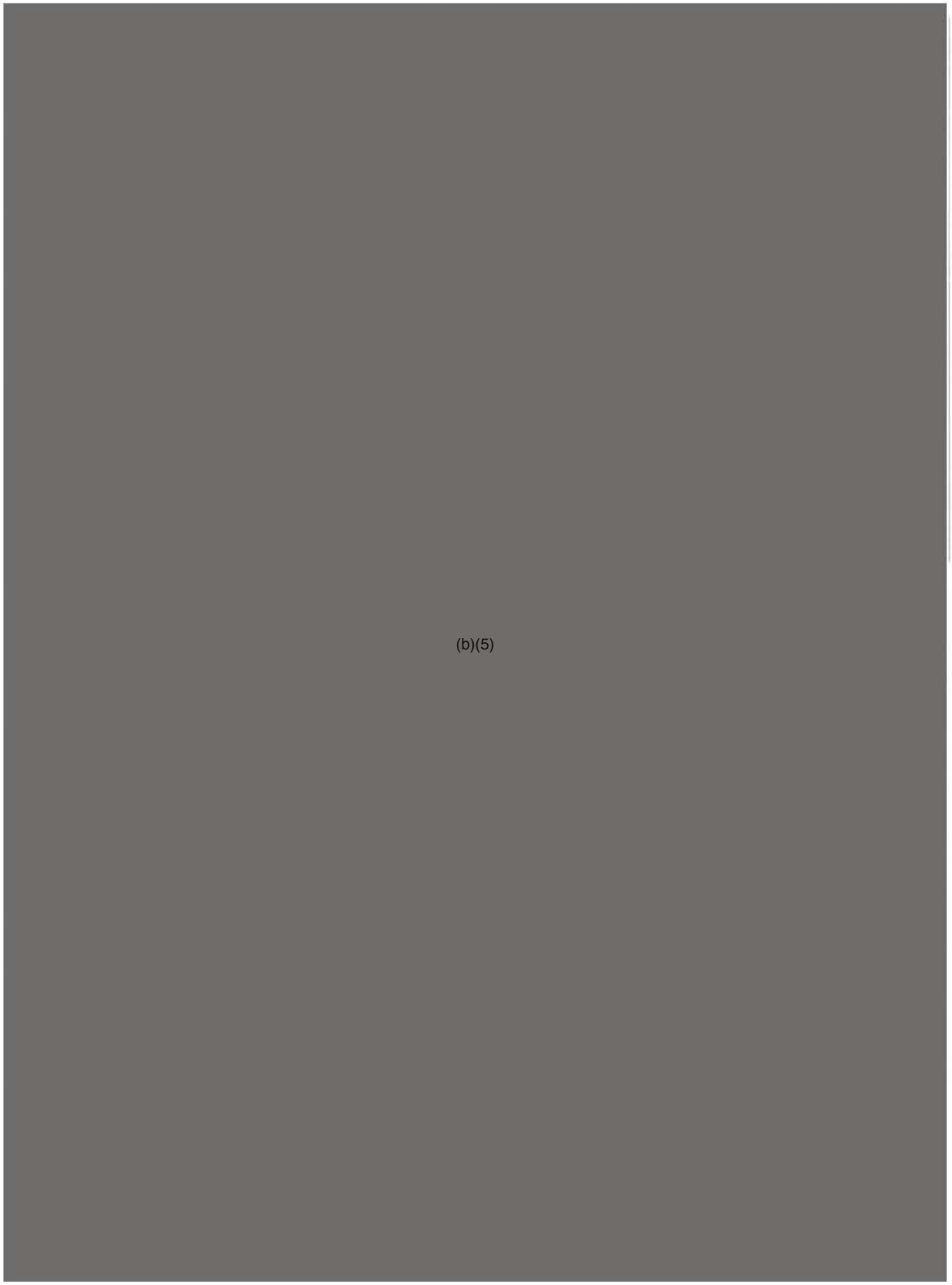
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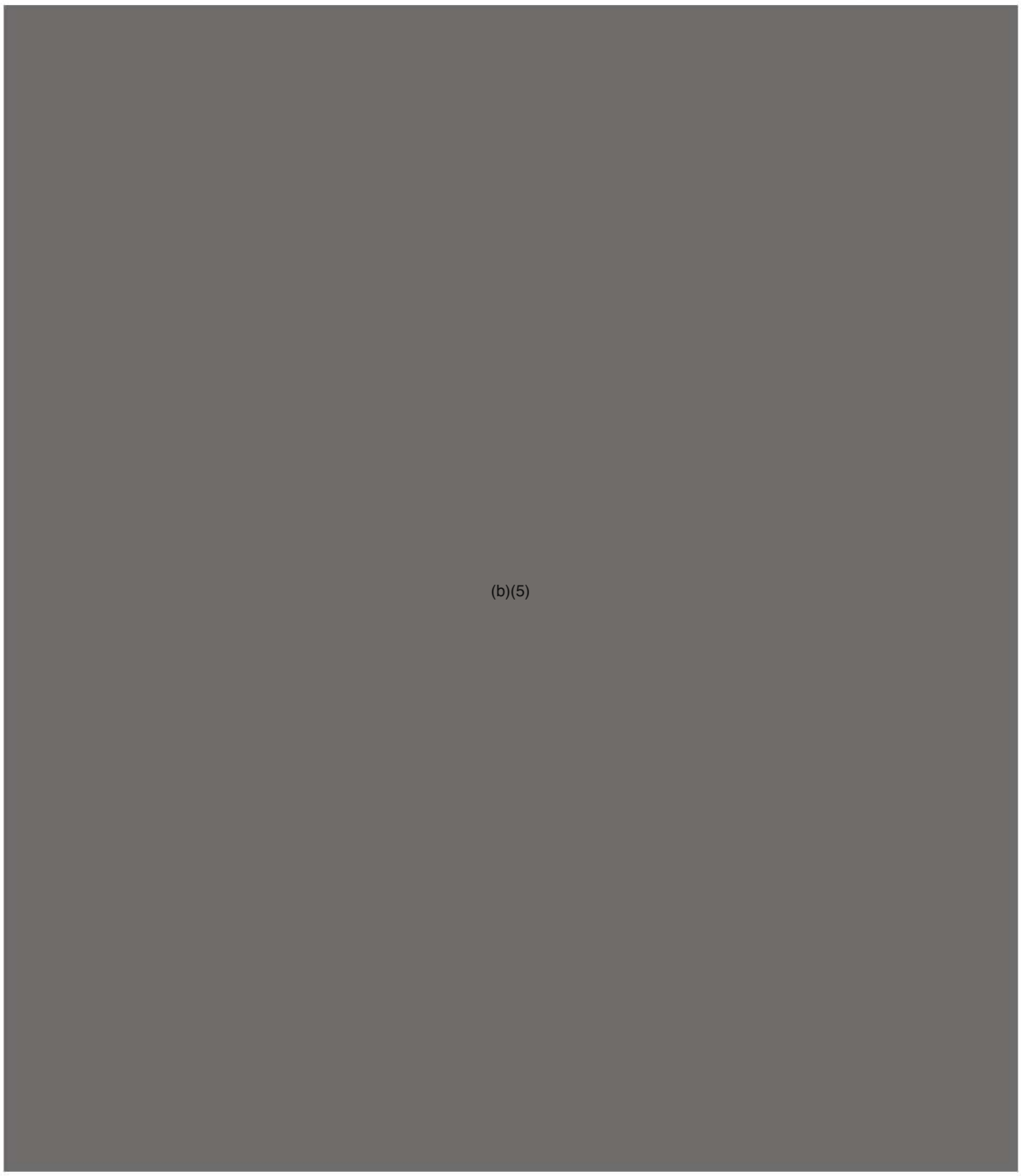
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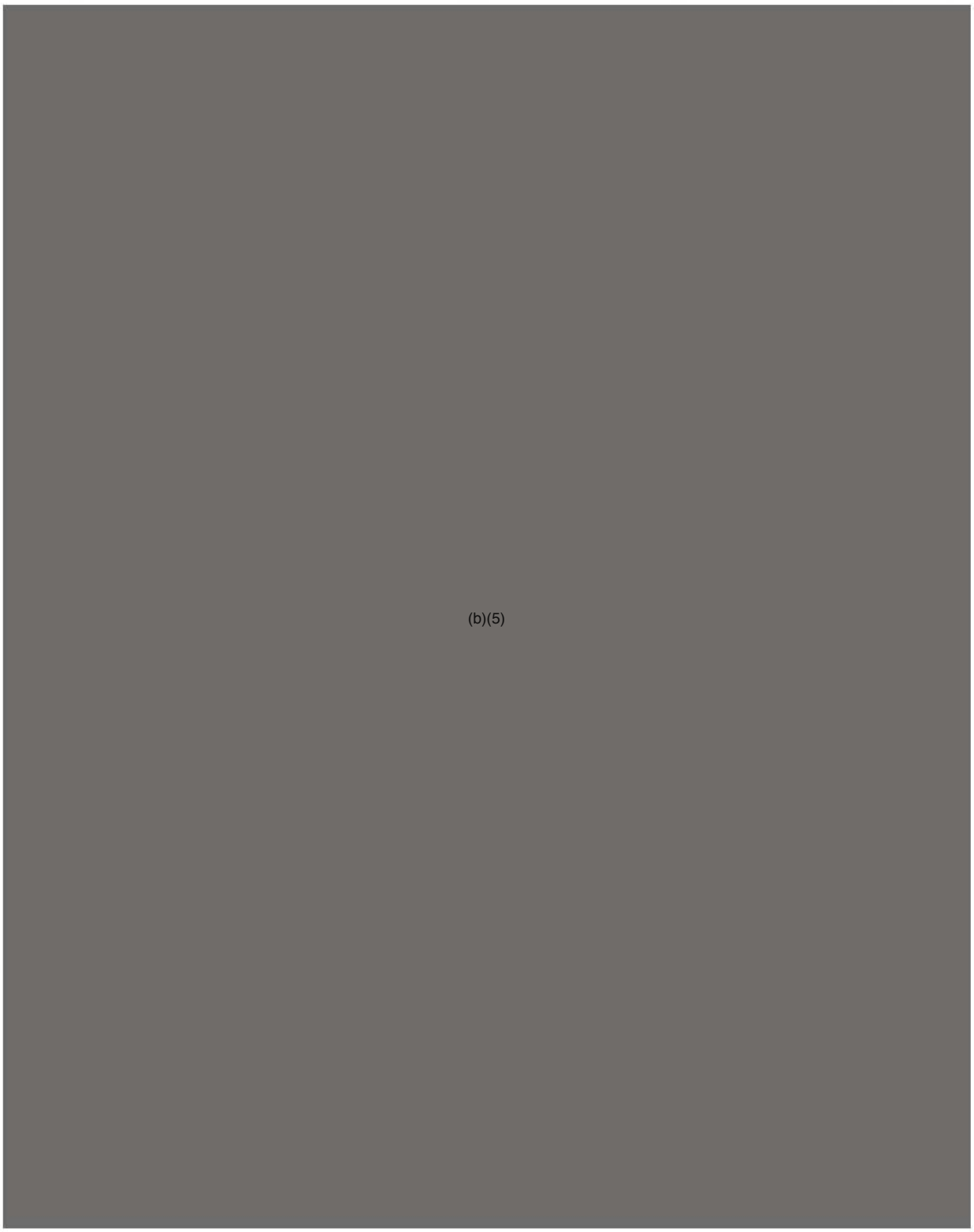
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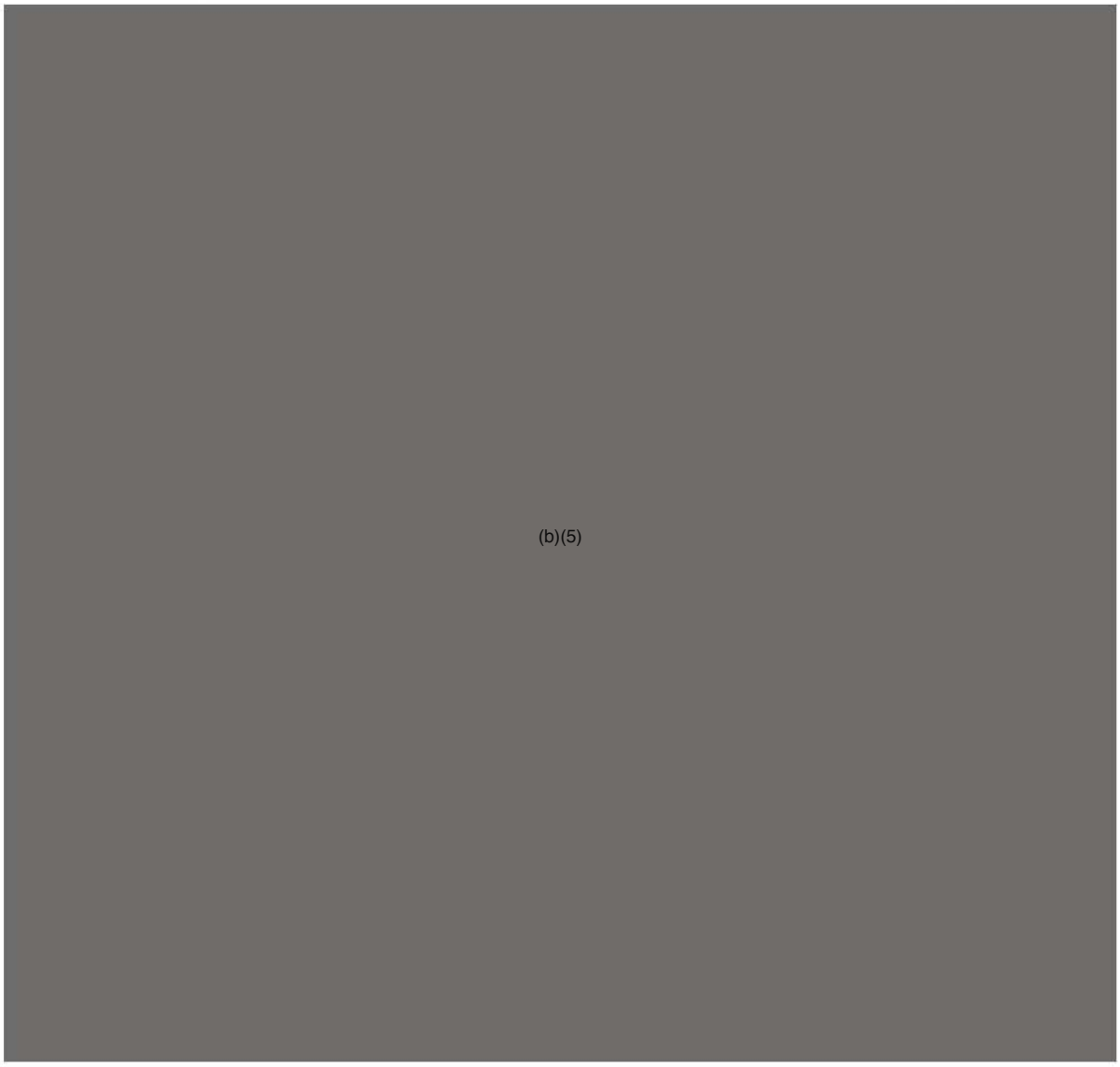
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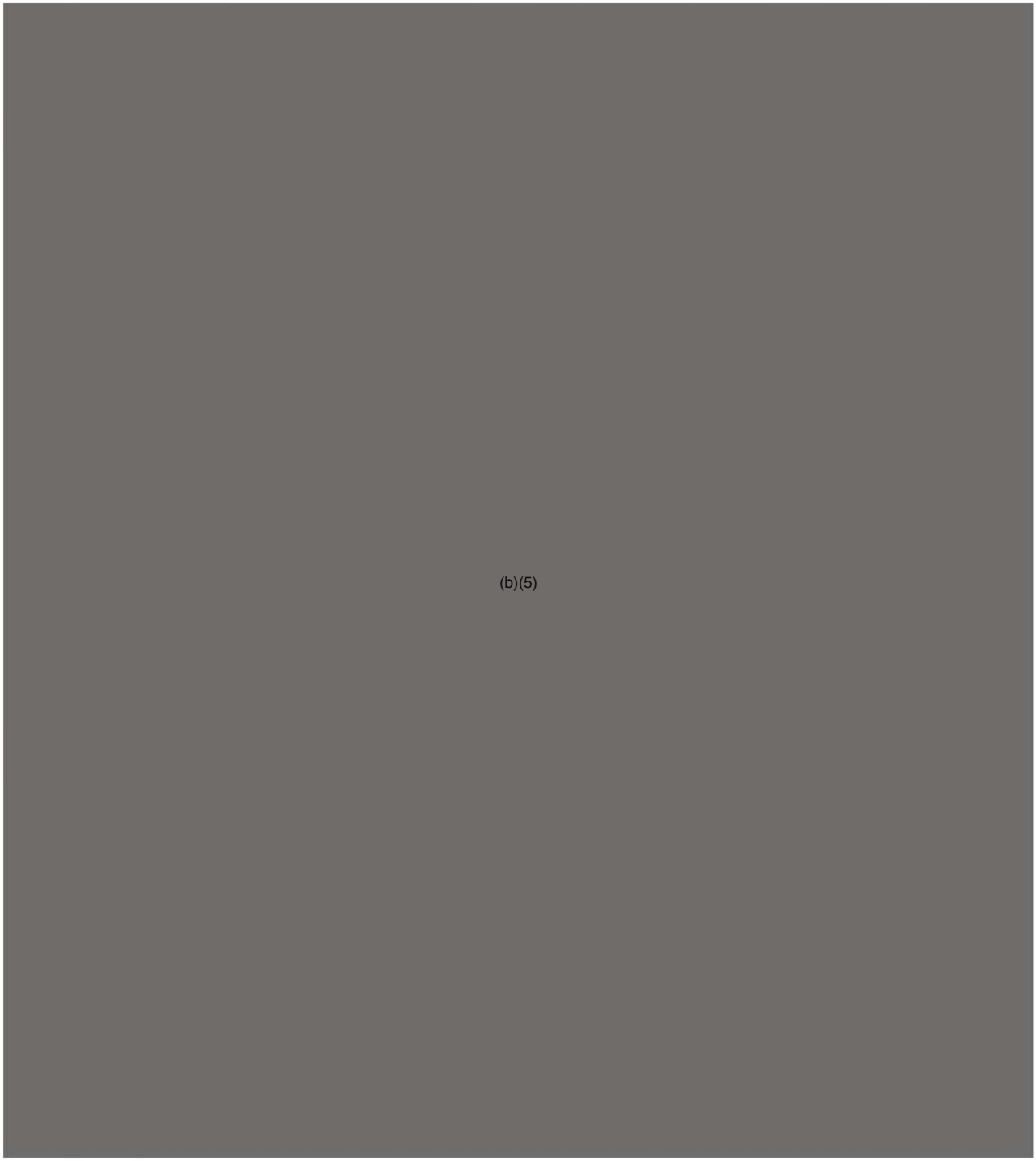
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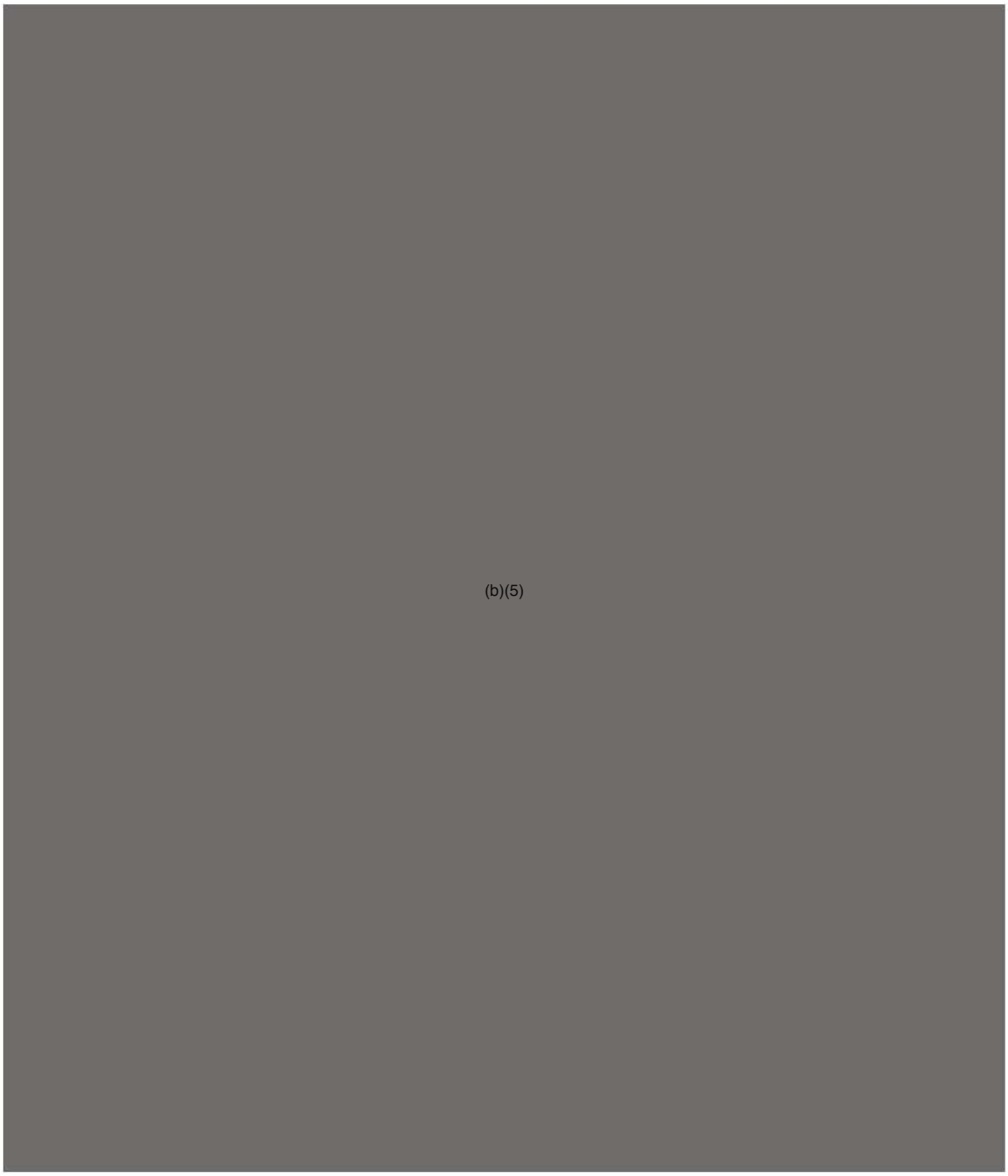
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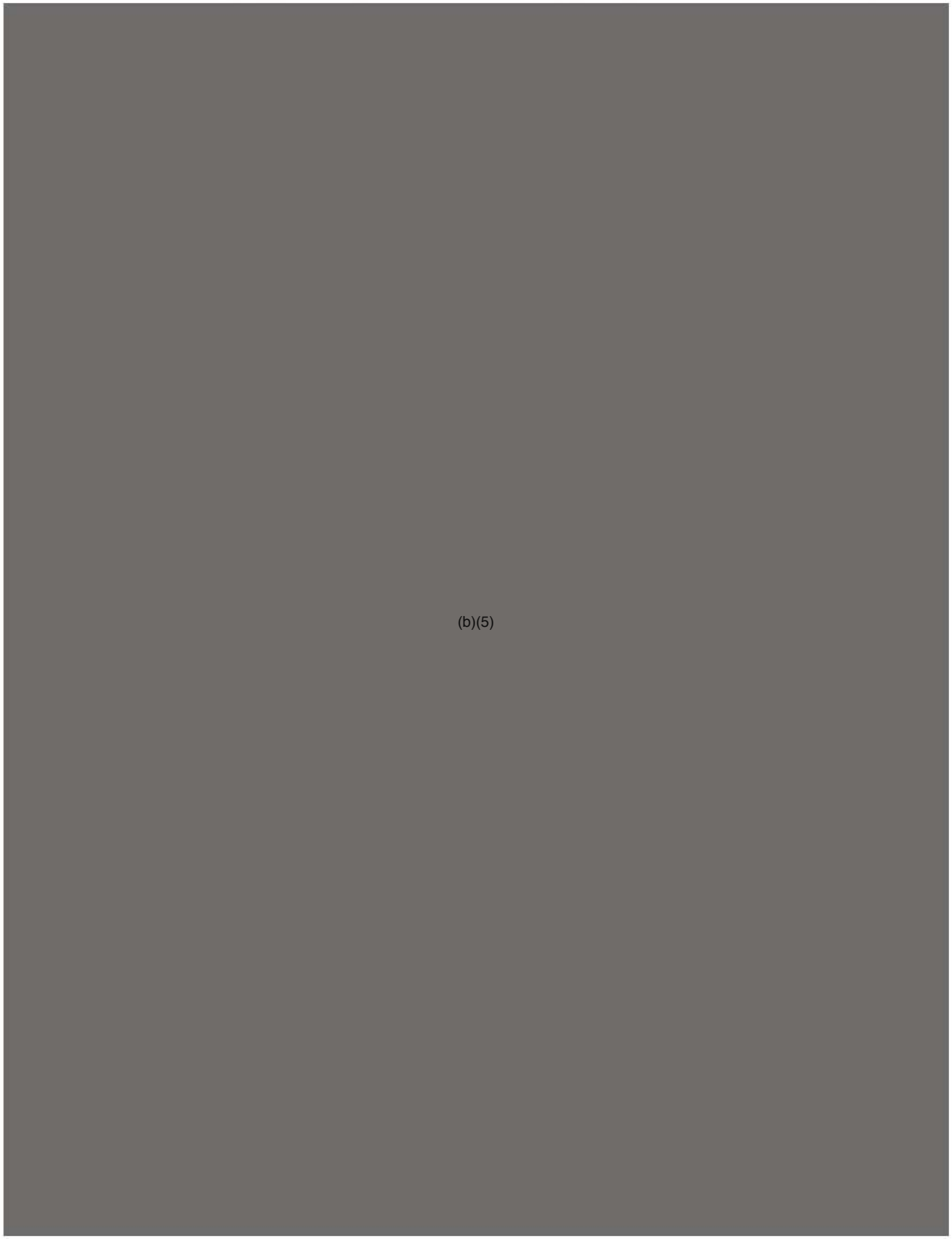
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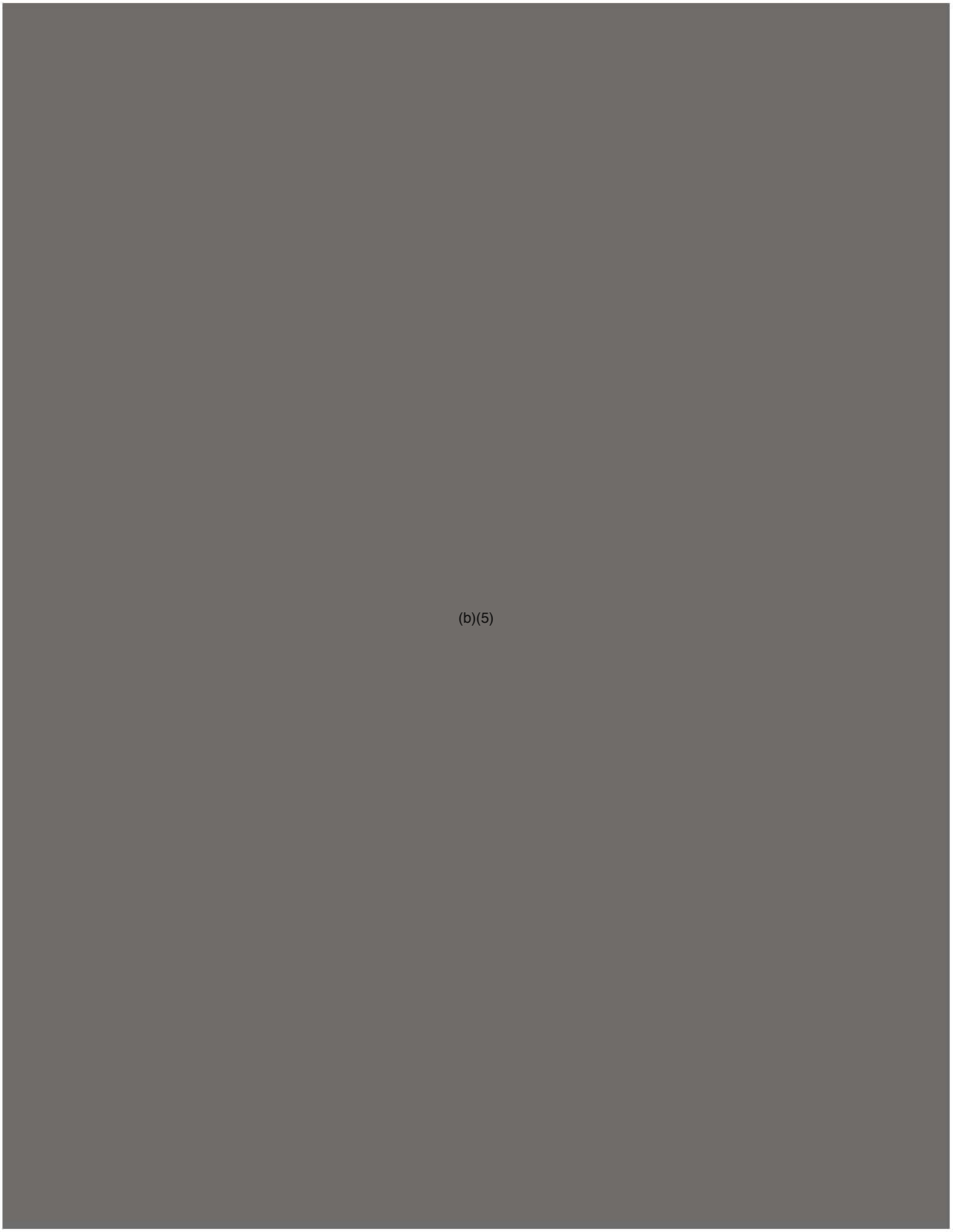
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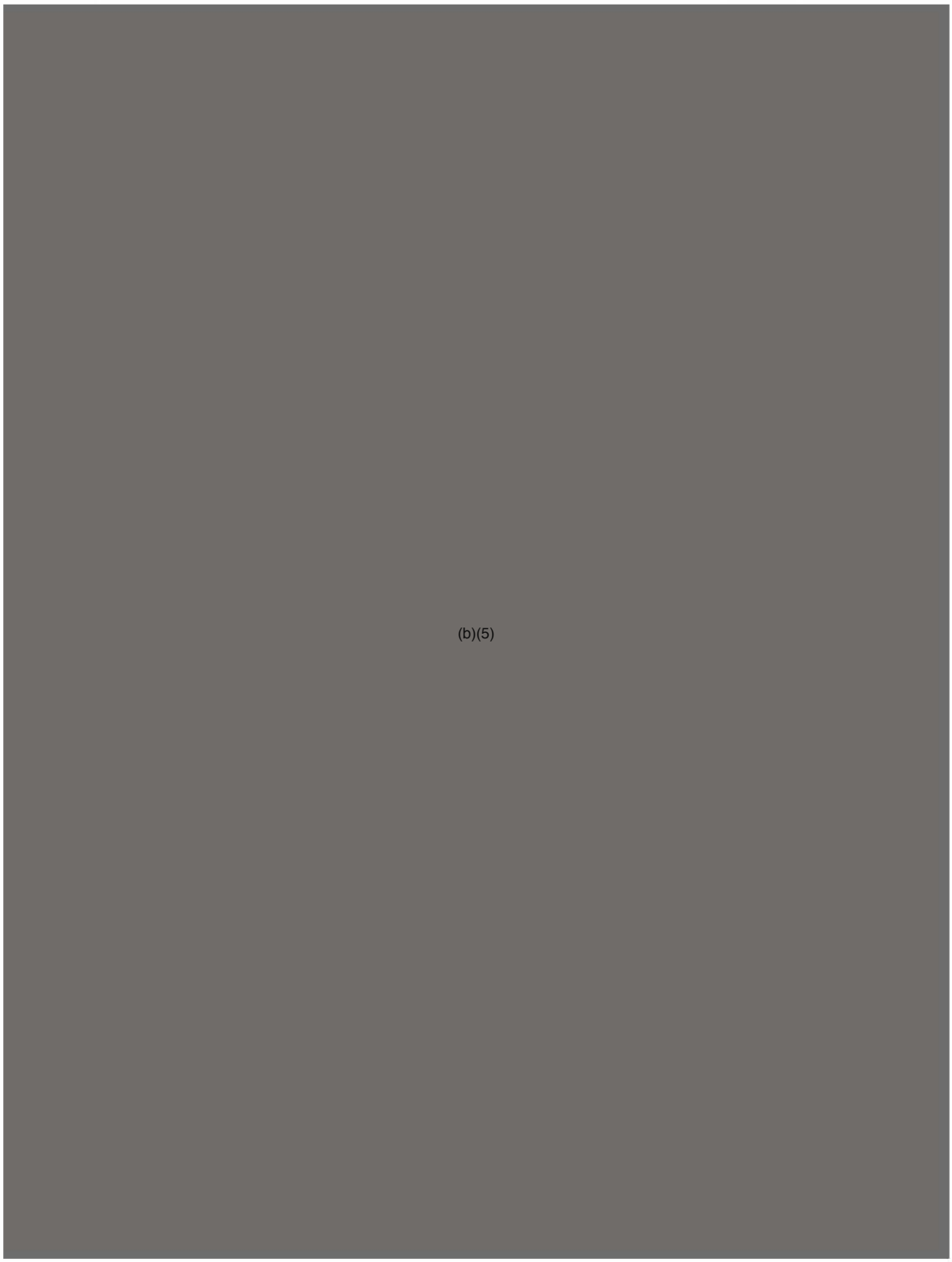
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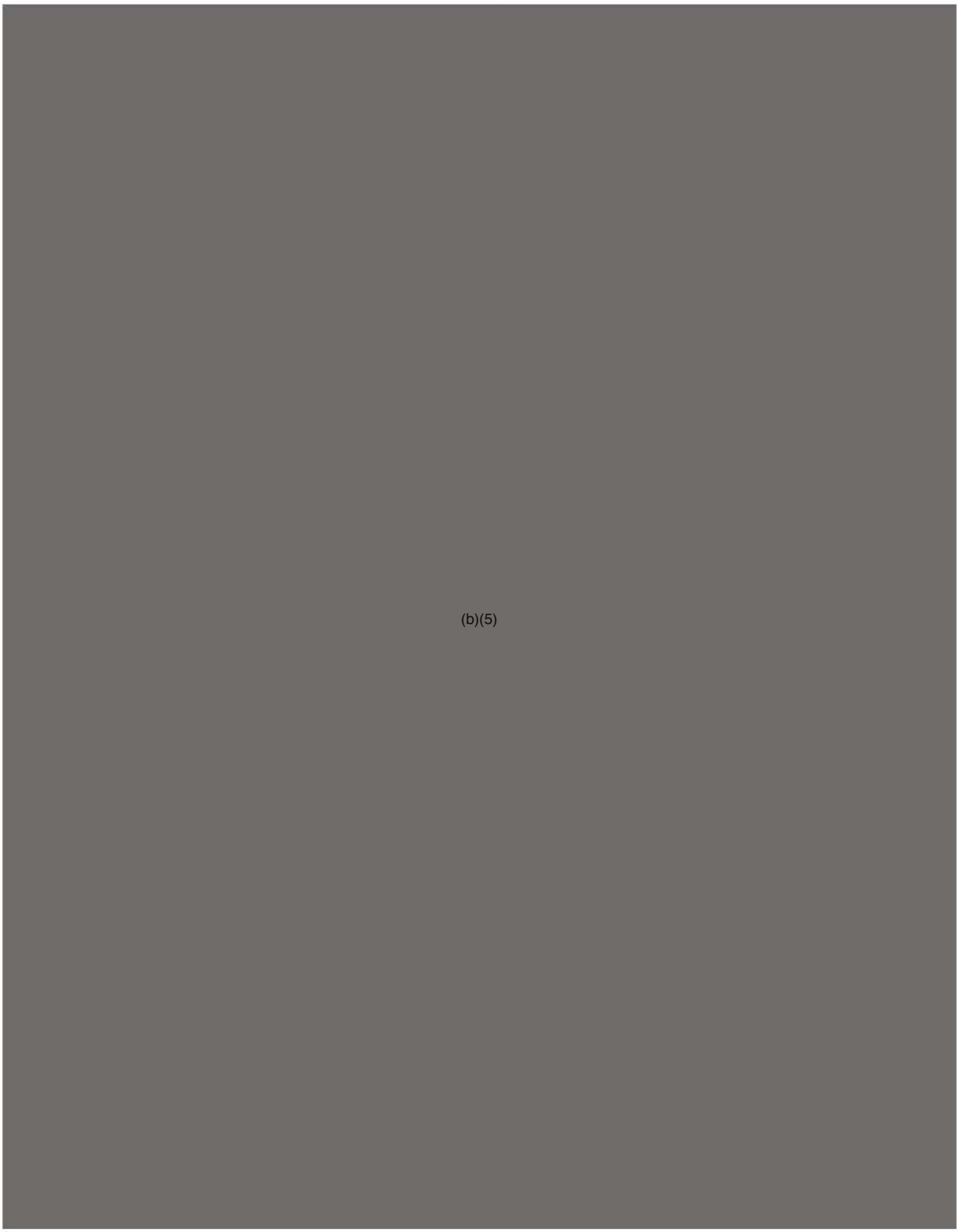
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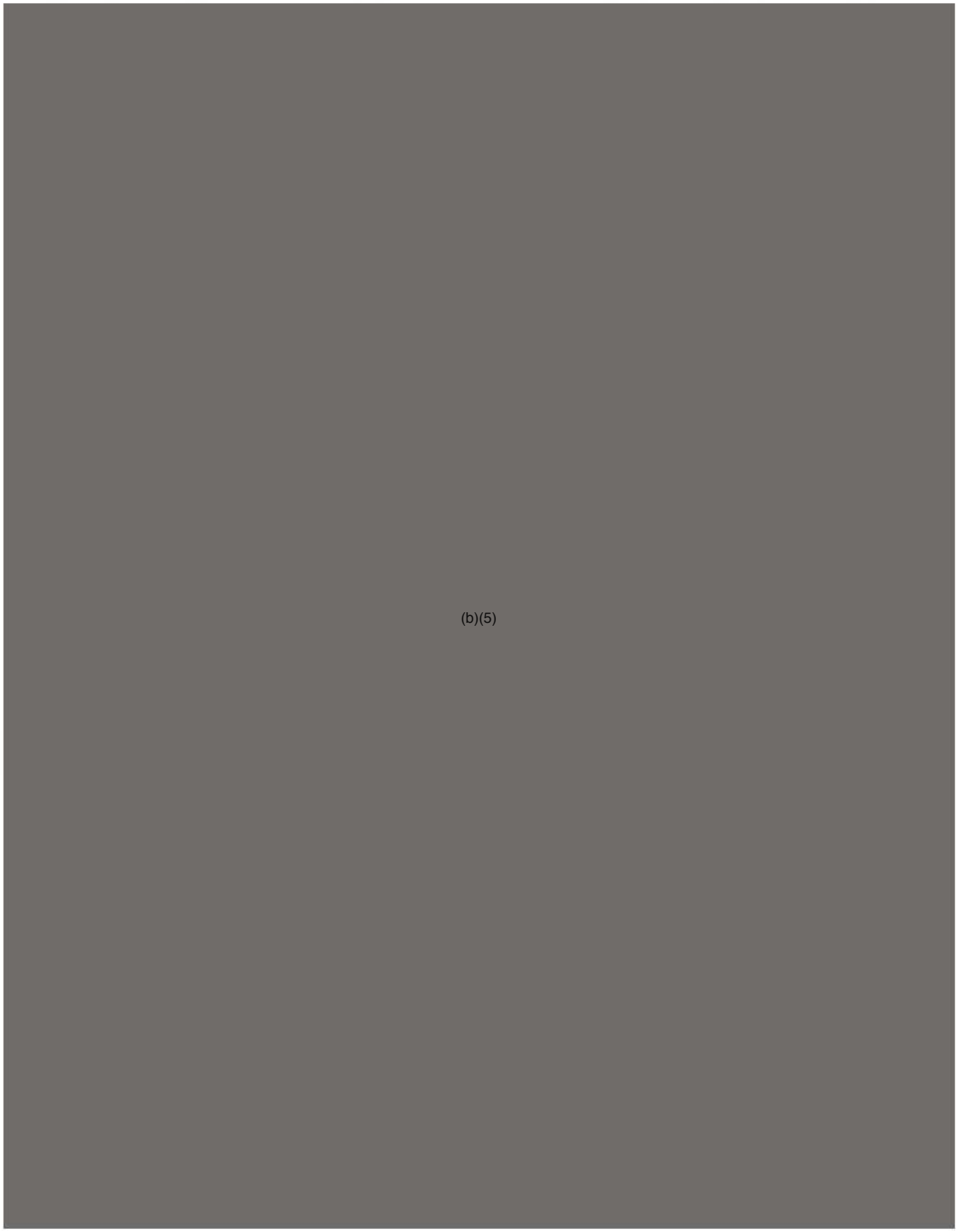
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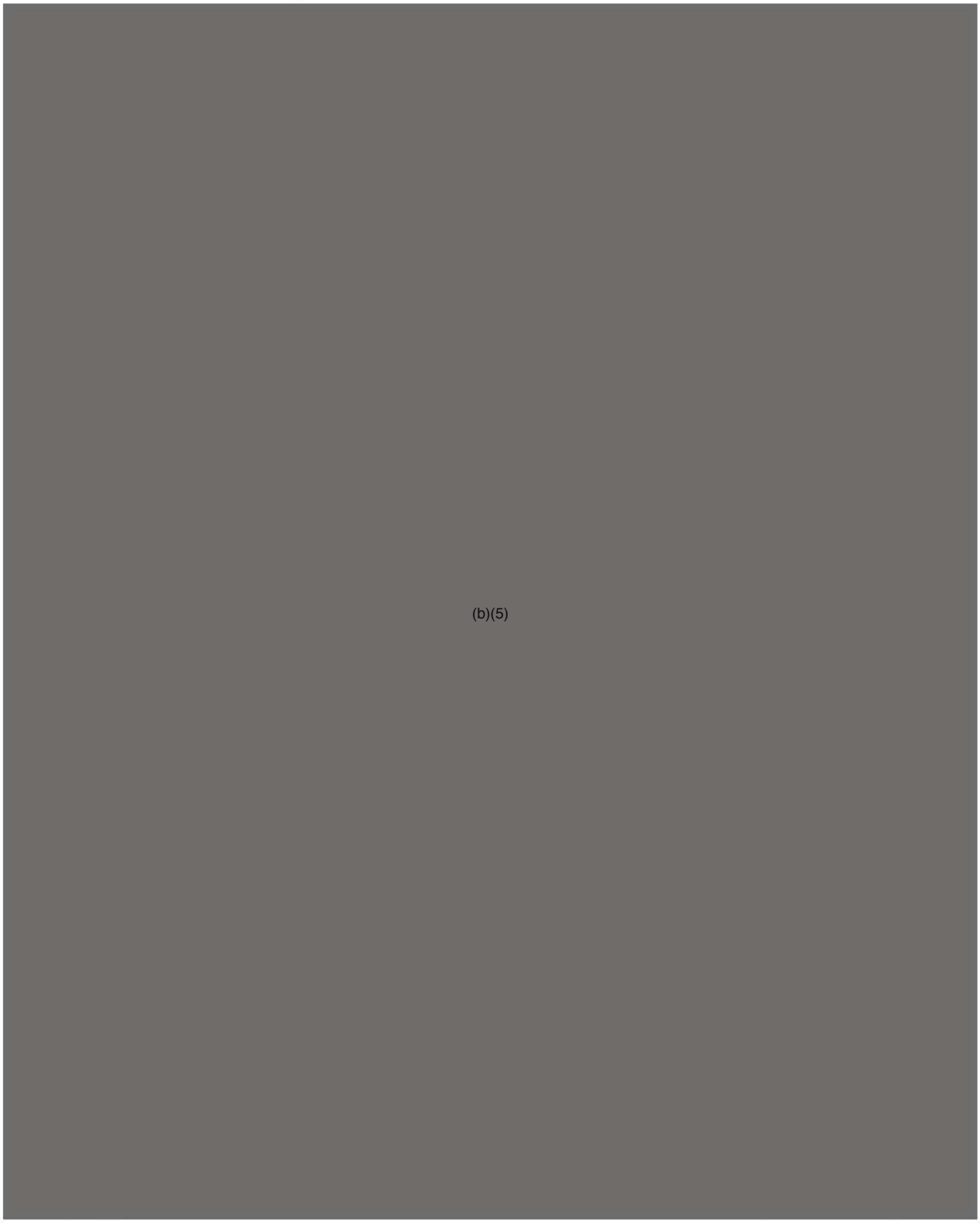
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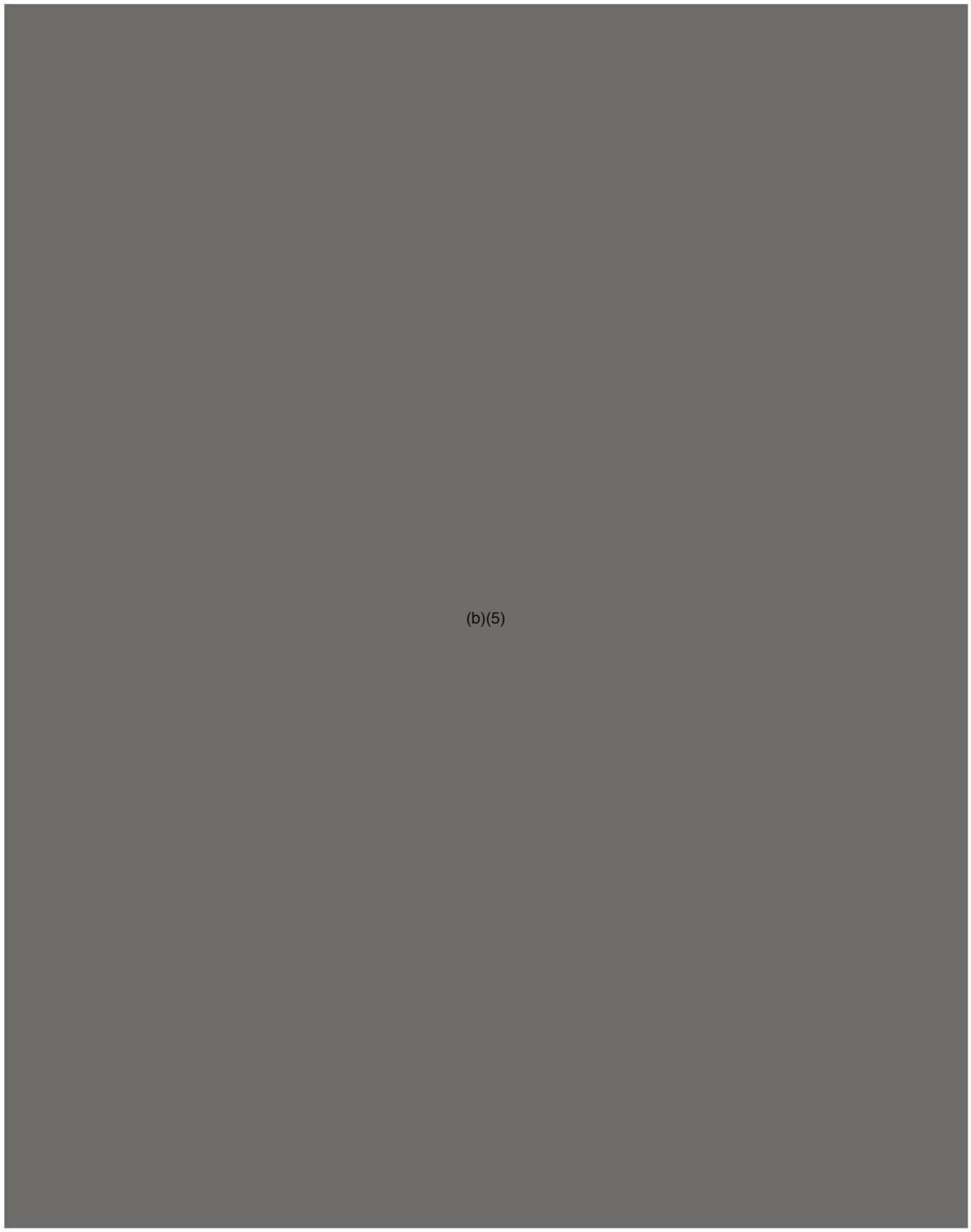
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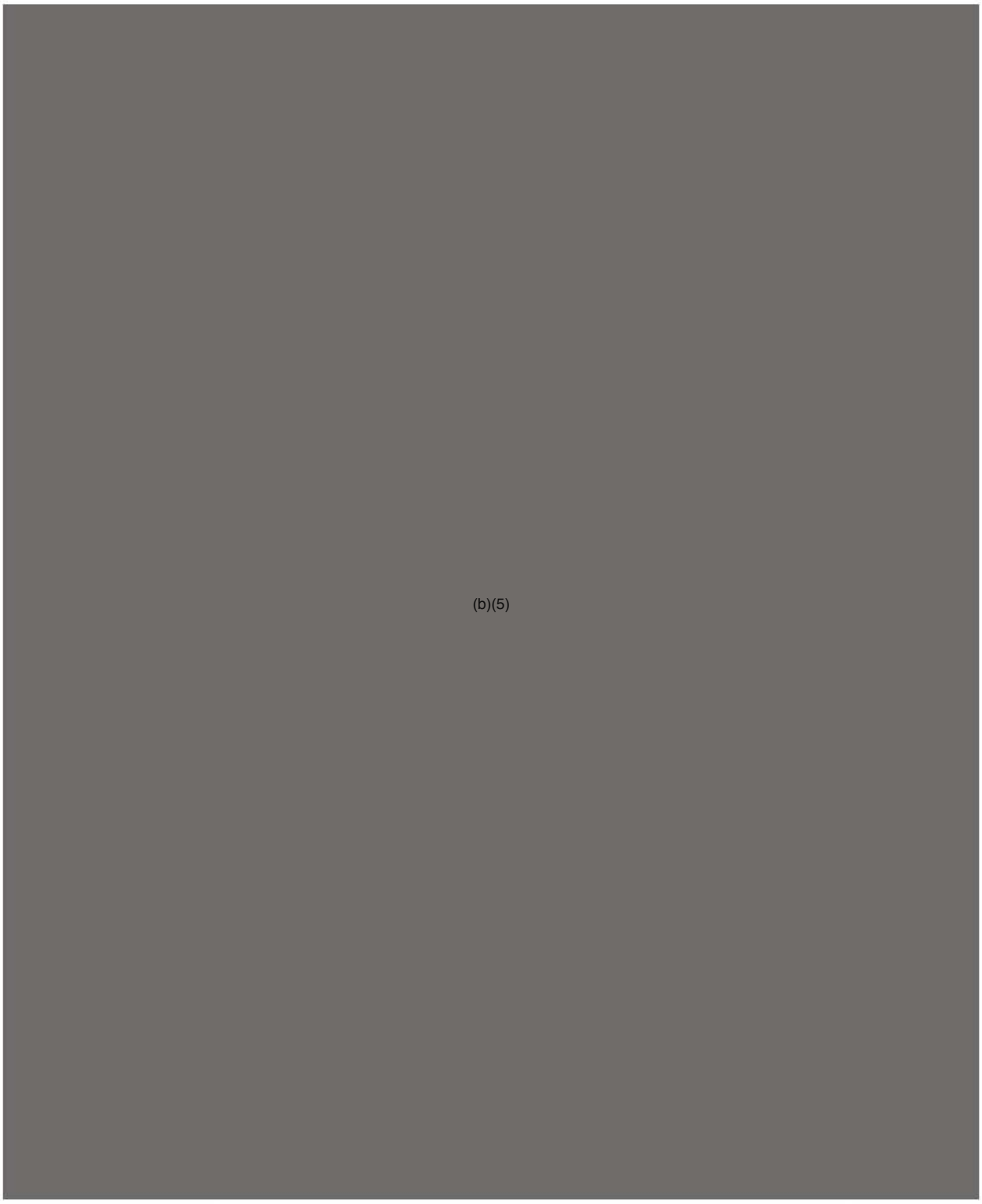
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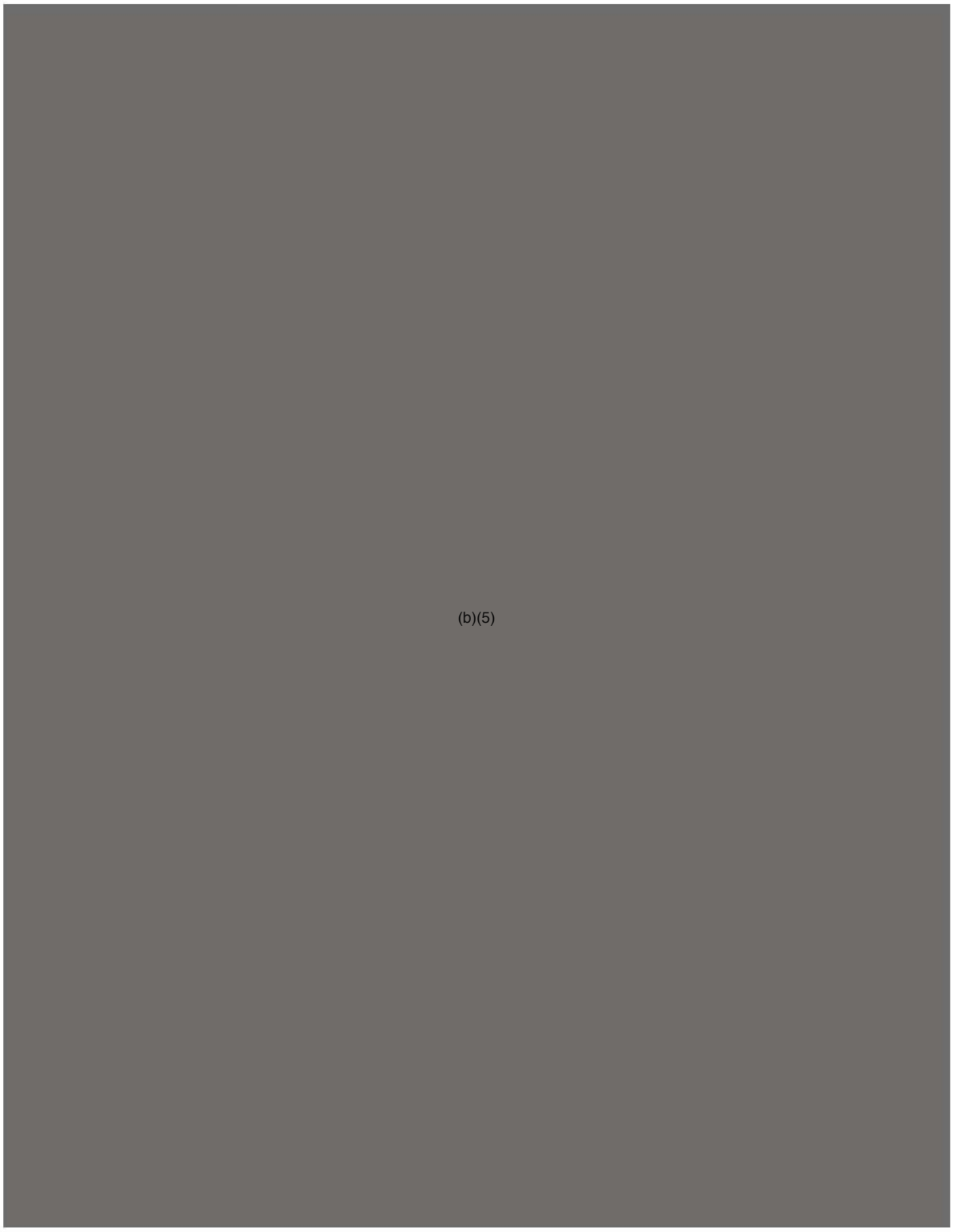
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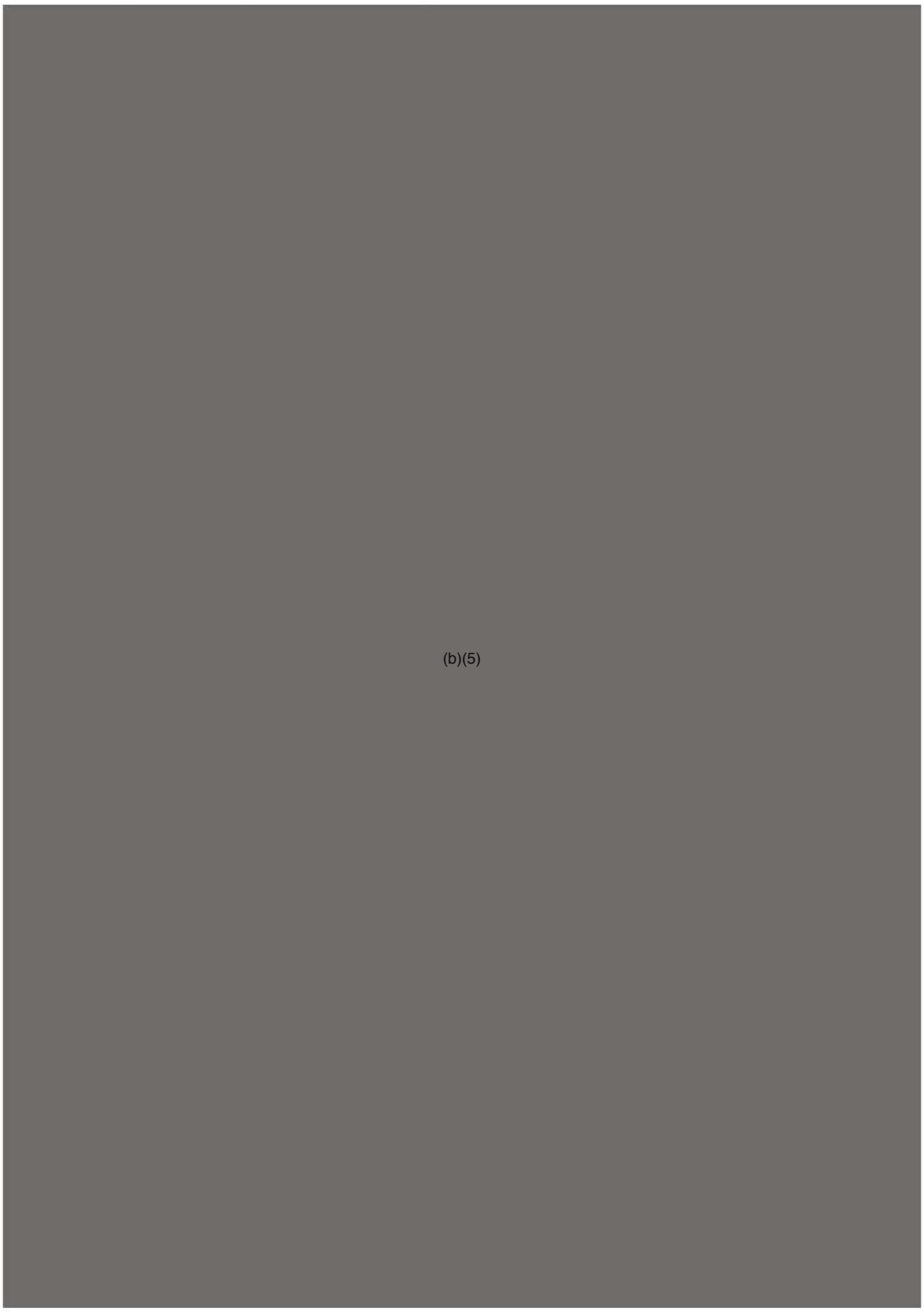
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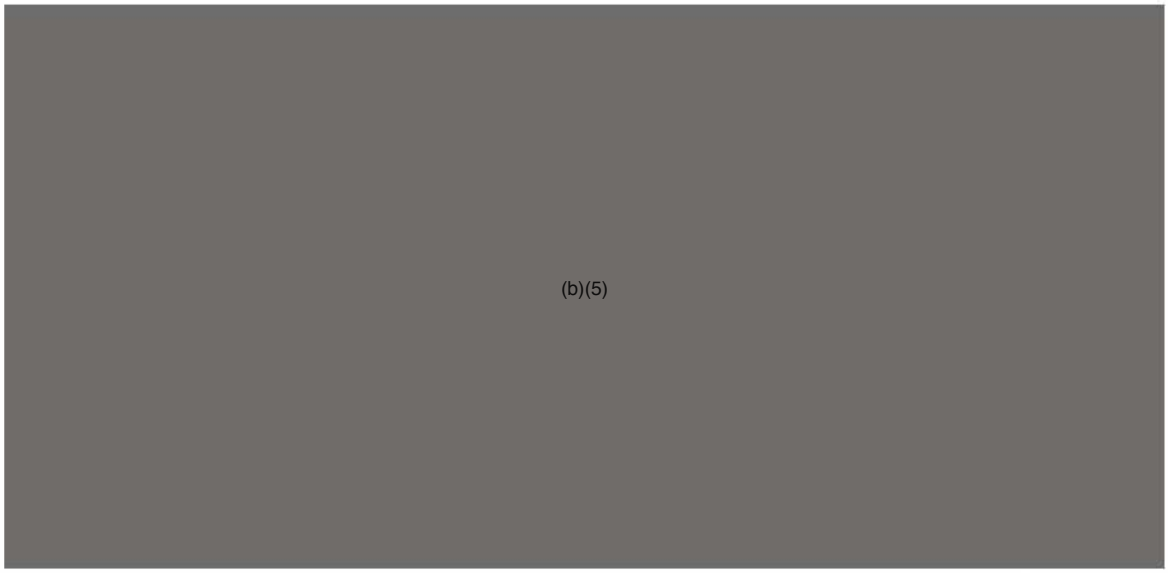
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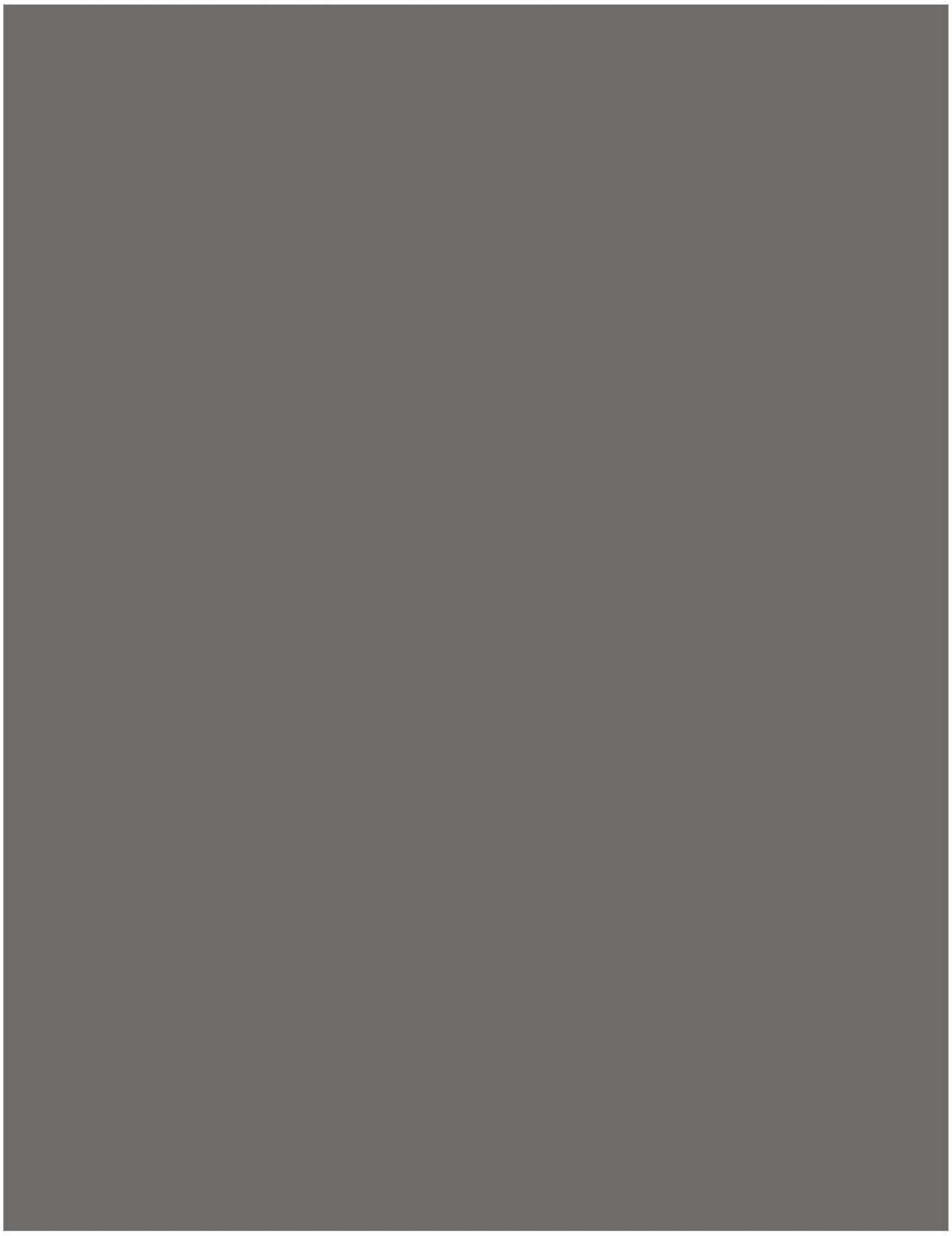
DEPARTMENT OF THE ARMY
PROGRAM EXECUTIVE OFFICE, MISSILES AND SPACE
BUILDING 5250
REDSTONE ARSENAL, AL 35898-8000

SFAE-MSL-CM

MEMORANDUM FOR RECORD

SUBJECT: Joint Land Attack Cruise Missile Defense Elevated Netted Sensor System (JLENS) Failure Review Board (FRB) Report

Referred to PEO, Missiles & Space, Redstone



[redacted]

Referred to PEO, Missiles & Space, Redstone

SFAE-MSL-CM
SUBJECT: JLENS FRB Results

[redacted]
Referred to PEO, Missiles & Space, Redstone

[redacted]
(b)(6)

Failure Review Board Chairperson

- Aerostat weight and balance maintained with Orbit payload weights and locations
  - Documented in EDTM-731

74A FCR REV 36

WEIGHT SUMMARY #1	WEIGHT	POSITION		
Aerostat	(lbs)	X (ft)	Y (ft)	Z (ft)
"A" Aerostat Mechanical	7606.590	109.312	0.033	4.137
"B" Aerostat Rigging	893.670	83.547	0.617	18.964
"C" Aerostat Electrical	351.610	74.650	0.726	42.559
"D" Housekeeping Rack	1196.340	80.549	0.000	36.900
"E" Windscreen Payload Frame	237.000	121.390	0.000	35.710
"W" Aerostat Cables	411.770	65.230	0.031	28.003
"X" Ballast	0.100	236.000	0.000	3.000
Aerostat Subtotal:	10697.1	Margin	Tether Wt	
Aerostat Max Weight for 7000 lb Payload:	10999.0	301.9	0.577	
Payload #1 (FCR Radar)				
"F" Subtotal Main Payload	4821.000	121.390	0.000	31.777
"G" Subtotal: Payload Support Equipment	1111.000	93.620	0.000	35.940
Payload #1 Subtotal	5932.000			
Payload #2 (Comms)				
"H" Subtotal: Lower Communications	754.000	180.910	0.000	21.260
"I" Subtotal: CEC	345.000	127.950	0.000	-31.780
Payload #2 Subtotal	1099.000			
Payload Total	7031.000			
7000 lb Allocated Payload Offset	-31.000	123.707	0.000	28.188
WEIGHT SUMMARY #2				
Aerostat	10697.080	101.375	0.100	11.921
Payload #1 (FCR Radar)	5932.000	116.189	0.000	32.557
Payload #2 (Comms)	1099.000	164.285	0.000	4.610
SYSTEM TOTAL	17728.080	110.232	0.061	18.373
7000lb Allocated Payload System Total	17697.080	110.208	0.000	18.355

74A SuR REV 33

WEIGHT SUMMARY #1	WEIGHT	POSITION		
Aerostat	(lbs)	X (ft)	Y (ft)	Z (ft)
"A" Aerostat Mechanical	7606.590	109.312	0.033	4.137
"B" Aerostat Rigging	893.670	83.547	0.617	18.964
"C" Aerostat Electrical	351.610	74.650	0.719	42.556
"D" Housekeeping Rack	1196.340	80.549	0.000	36.900
"E" Windscreen Payload Frame	237.000	121.390	0.000	35.710
"W" Aerostat Cables	411.770	83.930	0.270	35.952
"X" Ballast	0.100	236.000	0.000	3.000
Aerostat Subtotal	10697.1	Margin	Tether	
Aerostat Max Weight for 7000 lb Payload:	10999.0	301.9	0.577	
Payload #1 (SuR Payload)				
"F" Windscreen Payload Subtotal	4150.000	121.390	0.000	35.710
"G" Payload Support Subtotal	1194.000	93.620	0.000	35.940
"J" Port Group Main Payload Subsystem	250.000	88.580	0.000	9.190
"K" Stbd Group Main Payload Subsystem	250.000	88.580	0.000	9.190
"M" Hull Measurement Subsystem	222.000	15.851	0.558	-0.402
Payload #1 Subtotal	6066.000			
Payload #2 (Comms)				
"H" Subtotal: Lower Communications	754.000	180.910	0.000	21.260
"I" Subtotal: CEC Subsystem	345.000	127.950	0.000	-31.780
Payload #2 Subtotal	1099.000			
Payload Total	7165.000			
7000 lb Allocated Payload Offset	-165.000	117.782	0.000	28.008
WEIGHT SUMMARY #2				
Aerostat	10697.080	102.095	0.109	12.227
Payload #1 (SuR Radar)	6066.000	109.357	0.020	32.248
Payload #2 (Comms)	1099.000	164.285	0.000	4.610
SYSTEM TOTAL	17862.080	108.387	0.072	18.557
7000lb Allocated Payload System Total	17697.080	108.300	0.000	18.469

Meets Platform Weight Requirement With 302 (2.7%) Margin

[redacted]

Referred to PEO, Missiles & Space, Redstone

Data Restrictions:

Distribution DISTRIBUTION STATEMENT F – Further dissemination only as directed by the Cruise Missile Defense Systems Project Office, SFAE-MSLS-CMDS-PE-CM. Redstone Arsenal, AL 35898-5000, 24 March 2000.

[redacted]

Referred to PEO, Missiles & Space, Redstone

Applicable to: All

[redacted]

Referred to PEO, Missiles & Space, Redstone

Applicable to: All

No Authority to Release, Referred to PEO, Missiles & Space, Redstone

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No Authority to Release, Referred to PEO, Missiles & Space, Redstone

Date of Entry	Time of Entry	Entry by	Description of work, affected part identification, etc. (reference procedure H463028)	STR # or N/A	Defect# or N/A
9/09/15	1515	(b)(6)	Latched at 1515 for encroaching weather and lightning. Hpa #2 tripped again. And the monitor ~~#~~ close the door in acc is going out. ← it is turning colors. → Soft Starter	19152	
9/04/15	1710		power flickered out and came back up on Gen's didn't loose any power to mm's. 400 and 60 Hertz still up when I went out to check.	21102	
9-5-15	0630		Load cell failure confirmed. Cleaned connector w/ no joy. Briefed Army FD + MD that we could launch and monitor since part will not be on site till Tuesday 9/8. Army did not want to launch since it was Holiday, No mission, and potential risk. Had TCOM crew hook up princess as precaution due to multiple power failures on site.		
9-6-15	0500		On site check of system. All is good.		
9-6-15	1600		Launched TCOM flt 605 @ 1541Z. Lift J = 29,608 Climbed to 900.2' No issues		
9-6-15	1615		prior to flt. changed load cell P/N 3D16836H01 S/N 1279947 with new load cell S/N ~~1279947~~ 1293393. Component is good.		

Date of Entry	Time of Entry	Entry by	Description of work, affected part identification, etc. (reference procedure H463028)	STR # or N/A	Defect# or N/A
9-6-15	2045	(b)(6)	LOW WINDS AND LOW WINCH TENSION, TETHER MOVE TO 6497' WINCH 6000LBS. HPU 2 FAULT OCCURED		
9-7-15	0445		TETHER MOVE TO 6801'. HPU2 FAULT CAME ON FOR A SECOND TIME IN A ROW.		
9-7-15	1145		Tether move to 9005 '/CP 11370 /winds 10.0 Kts/ Temp54.4°F Scheduled move HPU2 fault accured after HPU shutdown		
9-8-15	0318		TETHER MOVE FOR WENCH TENSION TO 8499 TAD/CP 9,700/WIND 4.3/ TEMP 44.5°F - HPU 2 TRIP AND WAS RESET UPON SHUTDOWN.		
9-8-15	1120		Tether move to 9249 '/CP 11023 /winds 10.0 Kts/ Temp53.4 °F Scheduled move. HPU 2 soft start Tripped and was reset Lift V at altitude = 29313		
9-8-15	1650		Tether move to 9000 '/CP 12367 /winds 11.6 Kts/ Temp54.3°F Ops move Lift V = 29,615		
9/9/15	0041		TETHER MOVE TO 8748'/CP 11123/WIND 17.4 KTS/TEMP 56.3°F		
9/9/2015	0607		TETHER MOVE TO 10,000'/CP 11,381 / WINDS 18.6 KTS / TEMP 57.8°F		

Page closed by (QA): (b)(6) Date: 9/9/15

NO PAGES - LOGS OUT BY (b)(6)

Date of Entry	Time of Entry	Entry by	Description of work, affected part identification, etc. (reference procedure H463028)	STR # or N/A	Defect# or N/A
9/12/15	01:58	(b)(6)	HEAVY SHOWER DEVELOPED ON TOP OF G FIELD, PITCH +23.2° INSPECTION REQUIRED; IN HAULED TO 3413/CP 9987/WIND 14.4/TEMP 67° ADDITIONALLY TEMPO LOSS OF DYNAMIC PRESSURE ON FIN MOST LIKELY MOISTURE - RESTORED ON ITS OWN.		
9/12/15	02:14		ADVISED BOTH ARMY FP'S TO RECOVER - CELLS DEVELOPING IN AND AROUND THE BALTIMORE AREA TRACKING TO BOTH SITES NO LTG YET		
9/12/15	02:45		RECOVERED FROM FLT 605; TRW IN THE VICINITY FLIGHT TIME 83.07 TOTAL TIME 6503/4 FLIGHTS ON TETHER SINCE RETURN.		
9/10/15	10:06	(b)(6)	SM'S CROW REPLACED SOFT START HPU #2; ML ATTEMPTED TO PROGRAM IT BUT RAN INTO DIFFICULTY; ENGINEER FROM TCOM ENROUTE TO SITE TO TROUBLE/FIX COMM. 1250 ADDED TUBE #3 FROM SKID 451-5 CALCULATED NEW LIFT 29,544 WILL COMPARE AGAINST LIFT V ON NEXT FLIGHT	JESA934/525300003 STR5561	
9-13-15	1100		INSPECTED ROTARY DRIVE. EXTERNAL (b)(6) GEARS NEED LUBE. (b)(6)	JESA934/525400001 STR5562	
			ENTRIES TO FOLLOW DESCRIBING TROUBLESHOOTING EFFORTS FROM 9-10-15 TO 9-13-15		

Page closed by (QA): (b)(6) Date: 9/15/15

Date of Entry	Time of Entry	Entry by	Description of work, affected part identification, etc. (reference procedure H463028)	STR # or N/A	Defect# or N/A
9/3/15	1505	(b)(6)	LAUNCHED FLIGHT 606 AT 1438. ROTARY DRIVE FAILED TO DRIVE TO THE RIGHT (CW) DURING THE LAUNCH. NO OTHER ISSUES WITH THE LAUNCH. ROTARY DRIVE PRESSURES WERE COMPARED AND THE CW DRIVE SM IS 1000 PSI LESS WHEN OPERATED. WILL BE INSPECTED FURTHER. STOPPED AT 5302 FT. STR	JESA934A25460001 STR5562	
9-13-15	1645	(b)(6)	MAIN WINCH HPU 2 SOFT STARTER TH. WOULD (CAT. NO 5811T24N35, S/N: SA94##22) WOULD TRIP DURING MAIN WINCH SHUTDOWN. SPARE SOFT STARTER WAS BROUGHT DOWN FROM COLUMBIA (CAT. NO. 5811+T24N35, S/N: 936C3060). THE SPARE WAS ALREADY CONFIGURED BY BRIAN SIBLEY IN E. CITY. REMOVED TH. EXISTING HPU 2 SOFT STARTER (S/N: SA94##21) AND INSTALLED SPARE HPU 2 SOFT STARTER (S/N: 936C3060). CONFIGURED HPU 2 USING CH STUDIO SOFTWARE AND TH. DIM INTERFACE UNIT. SYSTEM IS NOW OPERATIONAL. STR(T)	JESA934A25530003 STR5561	

* NOTE!! SOFT STARTER CAT. NO. 5811 IS NO LONGER IN PRODUCTION BY THE MANUFACTURER. THIS MODEL HAS BEEN REPLACED BY CAT. NO. 5811+. DEVICENET MODEL D770-DNA IS ALSO DISCONTINUED. DURING THE PROCESS OF TROUBLESHOOTING SOFT START MODELS 5811+, WE NOTICED THE NEWER MODEL HAS A NEWER FIRMWARE WHICH CAUSES CONFIGURATION AND/OR COMMUNICATION OF THE UNIT DIFFICULT. THIS COULD BE TH. THE OLDER DEVICENET MODEL D770-DNA IS NOT COMPATIBLE W/ THE NEWER SOFT STARTER 5811+ AND/OR TH. CH STUDIO SOFTWARE IS OUTDATED. POSSIBLE SOLUTION, VERIFY NEWER SOFT STARTER 5811+ TH. COULD CONFIGURED BEFORE ARRIVING TO SITE AS SPARES OR PROVIDE CORRECT HARDWARE/SOFTWARE TO CONFIGURE 5811+ ON SITE.

(b)(6) 9/15/15

Date of Entry	Time of Entry	Entry by	Description of work, affected part identification, etc. (reference procedure H483028)	STR # or N/A	Defect# or N/A
9-13-15	2300	(b)(6)	Tether move to 5502'/CP 12780/ Winds 30.6 Kts/ Temp 42.4°F Scheduled move		
9-14-15	0417		Out haul		
9-14-15	0435		Tether move to 10002'/CP 13997 /winds 29.6 Kts/ Temp 33.3°F Move to meet mission requirements		
9-14-15	0540		Page 4 Showed EBU 1+2 activated at 0523, De Activated at 0531L. During this 8 minute time LRU showed 400 Hz operating and EBU's 1, 2, 3 all in the green., Page 4 now shows EBU1 = .9, EBU2 = 1.0		
9/14/15	0700		EBU'S 1 & 2 ACTIVATED. [redacted] DEACTIVATED AT 0714. EBU 1= 1.8 EBU 2= 1.9 AH.		
9/14/15	0915		" DEACTIVATED AT 0923". EBU 1= 2.1 EBU 2=2.2 AH.		
9/14/15	0925		" " DEACTIVATED AT 0935. EBU 1=2.5. EBU 2=2.7 AH.		
9/14/15	1221		TETHER MOVE TO 9758' / CP 14,493 / WINDS 35.5 KTS / TEMP 48.2°F		
9-14-15	1620		TESTED ROTARY DRIVES. CCW ROTARY DRIVE ~~ENGAGE~~ SIM DRIVES WITH NO ISSUE. VERIFIED VIA PLUS +1 LAPTOP THAT THE JOYSTICK POSITION IS CORRECT FOR CCW OPERATION TESTED CW ROTARY	JESA 9341925 B0001 STR 5562	

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Date of Entry	Time of Entry	Entry by	Description of work, affected part identification, etc. (reference procedure H463028)	STR # or N/A	Defect# or N/A
			DRIVE, WHICH DID NOT DRIVE DURING THE INITIAL TEST. VERIFIED JOYSTICK POSITION/OUTPUT WAS CORRECT VIA PLUS +1 LAPTOP. JOYSTICK POSITION IN CW DIRECTION MATCHES CCW DIRECTION. COMPARED PRESSURES. PRESSURE IN CW IS 1000-1200 PSI LOWER THAN CCW. DAMPING BLOCK FELT WARM, INDICATING THAT FLUID IS BEING SUPPLIED. OPENED CAPSTAN SIDE GEARBOX, OIL SMELLED BURNT. FURTHER WORK MAY BE NEEDED. AFTER SEVERAL TESTS, ROTARY DRIVES WORKED IN BOTH DIRECTION HOWEVER CW ROTATION IS SLUGGISH.	STR JO JESA934/SDS40001 STR 5566	
9-14-15	1715	(b)(6)	ALSO, OTH 103, EMPENNAGE SENSOR FAILURE FAULT PRESENT FOR MOST OF THE FLIGHT.		
9-14-15	1715		EBU USAGE BELIEVED TO ~~BE~~ SVR BE FALSE. USAGE ONLY PRESENT WHEN HEATERS ARE ON. HPDN TROUBLESHOOTING WILL BE CONDUCTED AFTER NEXT RECOVERY. ≈ 2.4A DISPLAYED ON UPS 1 AND 2, NOT 3, DURING HEATER OPERATION. VERIFIED VIA SCHEMATICS THAT 35A ON DC POWER SUPPLY WOULD REFLECT HEATER OPERATION. USAGE ON UPS 1 AND 2 IS 0A WHEN HEATERS ARE OFF AND DC PS SHOWS 7A.	STR 5566 JO JESA1525 70017	
9-14-15	2130	(b)(6)	Tether move 9998 CP-11110 / Wind 22 Kts / Temp 49.1 F		

Date of Entry	Time of Entry	Entry by	Description of work, affected part identification, etc. (reference procedure H463028)	STR # or N/A	Defect# or N/A
9-15-15	04:25	(b)(6)	Tether move to 9798'/cp 11269/winds 14.2 Kts/Temp 46.3°F Scheduled move Lift √= 29,001		
9/15/15	12:28		TETHER MOVE TO 10,000 TRD/CP 12,744/WIND 11.3/TEMP 49.4°F		
9-15-15	2020		Tether move to 9099'/CP 10576/Winds 3.5 Kts/Temp 51.4°F		
9-15-15	2200		Tether move to -101'/CP 10713/Winds 1.9 Kts/Temp 55.7°F		
9-16-15	0410		Tether move to 7499 Cp 9840/winds 4.6 kts/Temp 51.5°F		
9/16/15	0825		TETHER MOVE TO ~~9,000~~ 9,703/CP 11,536/WIND 6.9/TEMP 53.6°F		
9/16/15	1725		Tether move 9531		
9/16/15	2035		Tether move 9144/cp 11047/wind 10.1/Temp 52.0°F		
9-17-15	0555		Recovered TCOM flt 606 at 0540L. Total flt time 87.03 Total system flt time = 6590.09. APU time = 282.53 During recovery at ~2799', obtained levd wind fault. After several attempts to reset fault, had to hold down levelwind switch to complete inhaul. Once moored we observed levelwind switch had to make switch position adjustment. - No issues after adjustment	STR 5567	

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Date of Entry	Time of Entry	Entry by	Description of work, affected part identification, etc. (reference procedure H463028)	STR # or N/A	Defect# or N/A
7-17-2015	1630	(b)(6)	Attempted to install engineering spare HPDU (P/N: 3D16924G01, S/N: M00 2244, Rev K). The EBUs did not display signs of activation when the heaters were manually turned to ON. However, when the heat was commanded to OFF, the small battery currents occasionally exceeded 1.0 A fluctuating. Another spare HPDU (S/N: M00 2841, Rev J) was modified to include 2 copper plate bars. A new label is required to properly identify this unit as Rev K. No issues with installation of this unit. The HPDU removed had Rev: K S/N: M00 4034 While troubleshooting the HPDU, blower blanket heater #5 CB repeatedly tripped after commanding the heat ON. Swapping HCU units had no effect. Removed FITSU #1 (P/N: 4D0043360I, S/N: M00 2282, Rev L) and replaced with (S/N: M00 2281, Rev L). Instead of blower blanket heater # 5 tripping when heat is applied, blower blanket #9 trips when heat is activated - still open issue as of 9/21/15 KLB	STR 5566 JO JESA525700I7 JO JESA525700I7 STR 5566 JO JESA525700I7 STR 5566	
9-17-15	1750	(b)(6)	Launched TCOM SAT 607 at 1737 L. Lift V = 30,299 Climbed to 7231'.		
9-17-15	1800		This entry is late. At approximately 1600 time repaired lead wind fault. Roller became disengaged with rocker arm, so I located Roller and reseated it properly. Fault cleared no issues during attempt	STR 5567	

Date of Entry	Time of Entry	Entry by	Description of work, affected part identification, etc. (reference procedure H463028)	STR # or N/A	Defect# or N/A
9/18/15	0300	(b)(6)	Tether move 6999 CP 10369 / Temp. 54°F / Winds 5.6 kts		
9/18/15	0840		TETHER MOVE TO 10,000 / CP 13000 / TEMP 48.2 / WIND 5.3		
9-18-15	1300		Secured wind sock at tower of MMS.		
			Inspected JB at nose latch. No water was found; the JB was completely dry. In the process of opening the JB the weatherproof seal was damaged. New weatherproof seal must be applied.	STR	
9/18/15	1400	(b)(6)	MATT LEE AND CASEY TESTED THE ROTARY DRIVE AS PER NICK ANDERSON'S REQUEST. THE ROTARY DRIVE JOYSTICK IN THE WINCH CAB WAS MXED OUT IN THE COUNTER CLOCKWISE POSITION FOR 5 SECONDS, RETURNED TO NEUTRAL FOR 10 SECONDS, THEN MAXED OUT IN THE CLOCKWISE POSITION FOR 5 SECONDS. AS PER THE ROTARY DRIVE PRESSURE READ OUT ON PAGE 5, COUNTER CLOCKWISE READ 3614 PSI AND CLOCKWISE READ 2,180 PSI.	STR 5562 JO JESA 9341525800	
9/18/15	1615	(b)(6)	TETHER MOVE TO 9849. CP 12,641 / TEMP 57.1°F / WIND 12.3 KTS		
9/18/15	0900		INSPECTED NOSE LATCH VISUALLY W/O DISASSEMBLE. RECEIVER SEEMS SLIGHTLY WORN. BOTH NOSE LINE (TOP 2) PULLIES SEEM TO HAVE EXCESSIVE PLAY, GREASE IS SHOWING AROUND BEARING SURFACES. MAY NEED TO REPLACE OR HAVE REPLACEMENT ON HAND.		

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Date of Entry	Time of Entry	Entry by	Description of work, affected part identification, etc. (reference procedure H463028)	STR # or N/A	Defect# or N/A
9-18-15	2045	[redacted]	TETHER MOVE DUE TO LOW WINCH TENSIONS. 7853' CP 10500/WINCH 5960 lb/ WIND 9.4 KTS		
9-19-15	0345		TETHER MOVE TO 7640'		
9/19/15	1304		JOYSTICK MOVE TO 8249/12578/12.3/56.9		
9/19/15	2108		TETHER MOVE TO 7699'/CP 10250/WIND 8.1 Kts/TEMP 58.2° F SCHEDULE MOVE.		
9-20-15	0440		Tether move to 7900'/CP 10835/winds 14.5 kts/Temp 53.9 °F		
9-20-15	1335	(b)(6)	Tether move to 7499/CP 12245/winds 18.7 kts/Temp 65.8 °F		
9/20/15	2145		TETHER MOVE TO 7191/CP 10,165/WINDS 2.3 KNTS/54.0°F		
9-21-15	0500		Tether move to 7449'/CP 10491/winds 3.5 Kts/Temp 53.4 °F Scheduled move		
9-21-15	0730		Tether move to 9648'/CP 11146/winds 12.1 kts/Temp 47.7°F		
9/21/15	1700		TETHER MOVE TO 9318'/CP 11,376/WINDS 7.4 KNTS/TEMP 46°F		
9/22/15	0130		TETHER MOVE TO 9901'/CP 11440/WINDS 10.1 KNTS/TEMP 48.8°F		

(b)(6) 9/22/15

Date of Entry	Time of Entry	Entry by	Description of work, affected part identification, etc. (reference procedure H463028)	STR # or N/A	Defect# or N/A
9/22/15	0720		Tether move to 9800' / CP 10560 / Winds 7.2 Kts / Temp 46.7 °F		
9/22/15	1505		Tether move to 9398		
9/22/15	2045		TETHER MOVE TO 9101' / CP 10,960 / WINDS 4.0 KTS / TEMP 52.2 °F		
9/22/15	0430	(b)(6)	TETHER MOVE TO 8850' / CP 10,120 / WINDS 2.4 KTS / TEMP 50.3°F		
9/23/15	1207		Tether move to 9800' / cp 12804 / Winds 4.7 Kts / Temp 62.7°F		
9/23/15	1945		TETHER MOVE TO 9000' / CP 10,791 / WINDS 4.6 KTS / TEMP 52.3°F		
9-23-15	2250		TETHER MOVE TO 8000 FT. REPLACED BULB IN "MCC READY" LIGHT. PRESSURE CONTROL STATUS BRIEFLY INDICATED RED WHEN INHAUL WAS STOPPED. SOLDIERS RESET ALARM BEFORE FAULT COULD BE SEEN BEYOND THE RED BORDER.		
9-24-15	0053	(b)(6)	PER LOG ENTRY ON 9/16/15 BY C. BOATMAN, WE CONDUCTED ANOTHER ROTARY DRIVE TEST PER NICK ANDERSON'S REQUEST. TIM ~~ADDIT~~ ADDITIONAL PARAMETER WAS ADDED DURING THIS TEST.		
9/24/15	0810		TETHER MOVE TO 9798' / CP 10731 / WINDS 6.5 KTS / TEMP 48.6°F SCHEDULE MOVE.		

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Date of Entry	Time of Entry	Entry by	Description of work, affected part identification, etc. (reference procedure H463028)	STR # or N/A	Defect# or N/A
9/24/15	1600		TETHER MOVE TO 9549'/CP 11725/WINDS 5.4KTS/TEMP 55°F SCHEDULED MOVE.		
9/24/15	2045		TETHER MOVE TO 8001'/CP 11,279/WIND 18.9KTS/TEMP 50.5°F MOVE PER REQUEST FOR ARMY COMM. TESTING		
9/25/15	0420		TETHER MOVE TO 8500 TRD/CP 11,727/WIND 12.1 KTS/TEMP 47.6°F		
9-25-15	0840		Replaced Rotary Drive Valve, Relief Vented Cartridge (2) P/N RUGS-LCN. Tested and Ved good.		
9-25-15	1232	(b)(6)	Tether move to 8700 cp 11,780 / Wind, 13 Kts / Temp, 57.9°F		
9/25/15	1935		FTC # 1321 GENERATED FOR BROKEN WINDOW ON WINCH CAB		
9/26/15	20:30		TETHER MOVE TO 7103 TRD/CP 10,606/WIND 16.3/TEMP 53.0°F		
9/27/15	04:30		TETHER MOVE TO 7576 TRD/CP 12,378/WIND 18.4/TEMP 48.5°F		
9-26-15	1230		Tether move to 7676'/cp 13162/Winds 23.4 Kts/Temp 50.2°F		
9/26/15	2000		RECOVERED TCOM PLT GOT @ 1827 LCL FOR ARMY TRAINING SEE NEXT PAGE ↓		

Date of Entry	Time of Entry	Entry by	Description of work, affected part identification, etc. (reference procedure H463028)	STR # or N/A	Defect# or N/A
9/24/15	2000	CONT. (b)(6) GOK	CONT. DURING ARMY PRE/POST FLIGHT ACTIVITIES SIGNIFICANT HYDRAULIC LEAK ON AWP NOTED. ADVISED ARMY FD TO DISCONT. TRAINING UNTIL LEAK WAS REPAIRED. LAUNCHED FROM FCT GOB @ 1920 LCL TO 7023 FOOT - ARMY THEN DECIDED TO START PRACTICING "POWERING DOWN" THE MAST W/OUT NOTICE. DURING THIS TIME THE TETHER DEPLOYED INDICATION WAS RESET TO 0TFD. TFD MANUALLY SPUN OUT TO ENABLE RADIATION.		
9/26/15	0340	(b)(6)	CONT TROUBLESHOOTING ON AWP. AFTER REPAIRING THE LEAK SEEMS TO BE NOTED MAINLY WHEN MOVING THE BASKET ON THE TOP OF THE BLOCK. NEEDLES A JLG REP FOR REPAIR.		
9/27/15	0345		TETHER MOVE TO 6509 TFD / CP 11,634 / WIND 12.4 / TEMP 55.6°F		
9-27-15	1220		Tether move to 6699' / CP 12139 / Winds 12.1 kts / Temp 54.2° F Scheduled move		
9-27-15	1300		United Rentals came to site to inspect AWP. Found "blown" O-Ring seal causing leak. O-Ring was replaced.		
9/27/15	20:20		TETHER MOVE TO 6,204 TFD / CP 11,193 / WIND 12.0 KTS / TEMP 55.0°F		

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Date of Entry	Time of Entry	Entry by	Description of work, affected part identification, etc. (reference procedure H463028)	STR # or N/A	Defect# or N/A
9/28/15	0016	(b)(6)	TETHER MOVE TO 9614, CP 10,220, WIND 6.5 KTS, 57.8°F		
9-28-15	0818		Tether move to 7713'/cp 11482/winds 7.3 Kts/Temp 53.7°F Scheduled move		
9-28-15	1200		Recovered TCOM FH 609 at 1155 L. Recovery due to army request to perform certification flts. Total flt time= 16.58 + Total system time= 6847.51, Total AFC time= 539.95		
9-28-15			Army Training + Cert flts		

FT	Launch	Recover	Time
609	1216	1240	.40
610	1254	1316	.37
611	1436	1454	.30
612	1457	1513	.27

9-28-15	1640	(b)(6)	REMOVED AND REPLACE FITSU #1 TO CORRECT THE PROBLEM WITH THE HEATER BLANKET FOR THE BLOWER. TURNED ON THE HEATER CONTROL UNIT TO MANUAL O/V AND NON OF BLANKET BRAKER TRIP. ALSO BLOWER #2 IS WORKING AS WELL. (REMOVED FITSU#1 P/N 4D0043360P1 ~~SN#~~ REV. L S/N M00.2081) (INSTALLED REV.M S/N M001373 AEROSTAT BACK TO OPERATIONAL STATUS.		

Date of Entry	Time of Entry	Entry by	Description of work, affected part identification, etc. (reference procedure H463028)	STR # or N/A	Defect# or N/A
9-28-15	1730	(b)(6)	RE-INSPECTED NOSE LINE SHEAVES ON TOWER UNDER TENSION OF LAUNCH AND RECOVERY. SHEAVES SEEM LOOSE ON BEARING SURFACE BUT WERE 100% OPERATIONAL DURING OPERATION. THIS IS AN ITEM THAT WILL NEED MONITORING FROM TIME TO TIME; MAY STILL WANT TO ORDER REPLACEMENTS.	2/30Z	
9/29/15	2036		LAUNCHED TCOM FLT 613 @ 18:17 LOCAL AND RECOVERED FLT 613 @ 18:34 LOCAL FOR ARMY RE-CERT FLIGHTS TT 6849.13 (13 FLTS 00 TODAY)	0036Z	9/29
9/29/15	2037		LAUNCHED TCOM FLT 614 @ 19:58 LOCAL TO 6563 FEET TD CP 10,242 LBS/WIND 11.3 KTS/TEMP 55.5°F	0037Z	9/29
9/29/15	0418		TOTHOR MOVED 5978 LBS/CP 10,773/WIND 13.5 KTS/54.7°F - OCASSIONAL	0818Z	
9/29/15	1010		RECOVERED FLIGHT 614 AT 0749 TO SUPPORT ARMY CERTS ~~SUPPORTED~~ SM LAUNCHED FLIGHT 615 FROM 0852 TO 0921, FLIGHT 616 FROM 0931 TO 0951 AND FLIGHT 617 AT 0953. CERTS WERE STOPPED WITH THE AEROSTAT AT 2004 FT TO ALLOW NOSE AND BOOM HPUs TO COOL.	1410Z	
9/29/15	1230		RECOVERED FLIGHT 617 TO THE MMS. 2 SOLDIERS WILL BE ENTERING THE WINDSCREEN TO LOAD OCTOBER CRYPTO.	1630Z	
9/29/15	1329		2 SOLDIERS AND (b)(6) (RAYTHEON) ENTERED THE WINDSCREEN TO UPLOAD OCTOBER CRYPTO, ALONG WITH TOOLS AND ONE LADDER.	1729Z	

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Date of Entry	Time of Entry	Entry by	Description of work, affected part identification, etc. (reference procedure H463028)	STR # or N/A	Defect# or N/A
9/29/15	1500	(b)(6)	2 SOLDIERS AND (b)(6) (RAYTHEON) EXITED THE WINDSCREEN WITH TOOLS AND ONE LADDER.	19002	
9/30/15	~~0559~~ 0554		LAUNCHED FLIGHT 618 @ 0540 LOCAL TIME. TETHER DEPLOYED 5,200'. CP~ 12,607 / WINDS - 27.2 KTS / TEMP - 63.3°F — 3 prgids damaged for st noticed	09092	
9/30/15	1235		TETHER MOVE TO 5500' / CP 11,493 / WINDS 16.4 KTS / TEMP 68.3°F	16352	
9/30/15	2235		RECOVERED FROM FLT 618 BECAUSE OF A HURRICANE IN THE BAHAMAS ?? ANYWAY NO ISSUES TT 6881.84	0035 10/1	
10/30/15	2334		NOTED HE TEMP INDICATES 108° F, PROBE NEEDS TO BE REPLACED PRIOR TO NEXT FLIGHT.	JO JESA/527000005 STR 5580 03352 10/1	
10-1-15	515		Purity 99 LIFT CHECK: 98.7%, ADDED THE REST OF HELIUM TUBE 2 FROM SKID 4 & 5. APPROX ~~500 LBS~~. 600 LBS	19152	
10-1-15	545		AS PER TCOM FSA. ADDED TWO TUBES (4 AND 5) FROM SKID 451-5. LIFT ~ 32192 LBS.	19452	
10-1-15	1700		TROUBLESHOT HE TEMP SENSOR. NEEDS TO BE REPLACED P/N: 3D14071	JO - JESA/527000005 STR 5580 21002	

[redacted]

Date of Entry	Time of Entry	Entry by	Description of work, affected part identification, etc. (reference procedure H463028)	STR # or N/A	Defect# or N/A
10-2-15	2030	[redacted] (b)(6)	Replaced Temp Sensor Assmby (He) P/N 3D14 071 G01 Component checks good. 50/STR	JESA15 5580	2780005 0030Z b/3
10/4/15	0840		VALVED 3.5 MINS OF He. ESTIMATED LIFT NOW 31,000 LBS WILL CHECK UPON NEXT FLIGHT; NO FLIGHT @ THIS TIME DUE TO VARIABLE HIGH SURFACE WINDS.	1240Z	
10/4/15	0900		BRIEF UTILITY POWER LOSS - ALL SYSTEMS GREEN/POWER RESTORED.		1300Z
10/4/15	2055		Launch on station. Cp 11345 / Wind 15 Kts / Temp 45.3 Altatude 7696 Ft Unlatch time was 2018 Airborne lift check = 30,442 at 7696' Winds 11.0Kt Temp 52.9°F	0055	5 14/5
10-4-15	2235		Lubed rotary drives with Gear Shield grease.	0235	2 10/5
10-5-15	0500		Tether move to 7899' / CP 12236 / Winds 18.7 Kts / Temp 53.8°F	0900Z	
10-5-15	0515		Late entry. After launch blower #2 alarm came on. Suspect FTSU / Blower / Cable issue. Parts ordered for Trouble shooting and to be delivered to site 50/STR	JESA15 0919Z	2780001
10-5-15	1900		E-Tec inspected Nose latch junction boxes and found the upper to be dry and void of corrosion. Tech then sealed box. Inspection of lower box revealed water in box and corrosion on bus bar. Bus bar and new terminal ends ordered.	2300Z	

Page closed by (QA): [redacted] (b)(6) Date: 10/6/15

Date of Entry	Time of Entry	Entry by	Description of work, affected part identification, etc. (reference procedure H463028)	STR # or N/A	Defect# or N/A
10/5/15	2200	(b)(6)	Tether move to 8549'/CP 11917/Winds 16.5 Kts/Temp 49.6°F Time of move 2118L		02002 10/6
10/6/15	0500		Tether Move 8760'/ CP/12459 /Winds 22.8 Kts/Temp 49°F		09002
10/6/15	1255		TETHER MOVE TO 10,000'/CP 12,915/WINDS 19.9 KTS/TEMP 58.1°F		16552
10-6-15	2100		Tether move to 9775'/CP 12163/Winds 15.5 Kts/Temp 45.7°F Scheduled move		01002 10/7
10/7/15	0500		Tether move to 9362'/CP 12916/winds 25 Kts/Temp 45.2°F		09002
10-7-15	1130		TOOK HYDRAULIC FLUID SAMPLES FROM ALL HPUs. SUGGEST DRAINING BOOM HPU AND FLUSHING IT, TO REMOVE ALL WATER FROM THE SYSTEM... ASAP!!		15502
10-7-15	1241		TETHER MOVE TO 9750FT. CP 13500/WINDS 15.8KTS/TEMP 46°F		16412
10/7/15	2100		Tether moved to 9250'/CP 13060/Temp 90°F/winds 27.5 Kts		01002 10/8
10/8/15	0506		TETHER MOVE TO 9000'/CP 12,576/WIND 23.7KTS/TEMP 41.2°F SCHEDULED		09062
10-8-15	1015		RECOVERED FLIGHT ~~SN 620~~ SN 619 FOR ARMY TRAINING AT 0830. INSPECTED NOSE LINE DURING HAUL. DAMAGE WAS 5/8 OF THE WAY UP THE LINE, REQUIRING REPLACEMENT.	JO/JESA1522930009 SHT	14152

Date of Entry	Time of Entry	Entry by	Description of work, affected part identification, etc. (reference procedure H463028)	STR # or N/A	Defect# or N/A
			(CONTINUED) APPROX 1 HOUR REPLACED NOSE LINE. ARMY STILL WANTS TO TRAIN, SO WORK WILL START ON JB208 ONCE AEROSTAT IS PARKED AT MISSION ALTITUDE.	JO/JE&A 152730009 STR/5582	
10/8/15	1305	(b)(6) redacted	ARMY BEGAN TRAINING. FLIGHT 620 LAUNCHED AT 1305. UP/DOWNS WILL CONSIST OF FLIGHTS FROM POINT TO TAGLINE SEPARATION, THEN BACK DOWN.	1705Z	
10/8/15	1407		AEROSTAT REACHED MISSION ALTITUDE OF 8502'/CP 12,954/WINDS 16.2 KTS/TEMP 55.7°F. ARMY FD WENT FROM POINT DIRECTLY TO MISSION ALTITUDE AFTER 1 UP/DOWN. NO MOORING OCCURED; STILL FLIGHT 620.	1807Z	
10/9/15	2140		TETHER MOVE TO 8250 TFD/CP 13,554/WIND 19.9/TEMP 47.8°F	0142	1409
10/9/15	0500		TETHER MOVE TO 8499 TFD/CP 13,321/WIND 26.8/TEMP 43.6°F		
10/9/15	1000		E-TECH REPLACED CORRODED TERMINAL BLOCK INSIDE NOSE LATCH LOWER JUNCTION BOX. UPON COMPLETION, E-TECH SEALED BOLT HOLES IN THE COVER AS WELL AS LAID A BEAD OF SEALANT AROUND THE ENTIRE COVER GASKET IN ATTEMPT TO RESTORE WATERTIGHT INTEGRITY OF THE JUNCTION BOX AND PREVENT FURTHER CORROSION RELATED ISSUES. STATUS OF NOSE LATCH INDICATOR WILL BE DETERMINED UPON RECOVERY AND MOORING OF FLIGHT 620.	1400Z STR JO redacted STR/5583 0815 1000	

Page closed by (QA) (b)(6) redacted Date: 10/9/15

Date of Entry	Time of Entry	Entry by	Description of work, affected part identification, etc. (reference procedure H463028)	STR # or N/A	Defect# or N/A
10/9/15	1230	[redacted] (b)(6)	TETHER MOVE TO 5,212' DUE TO POTENTIALLY INBOUND STORMCELL. CP 14,441 / WINDS 28.7 KTS / TEMP 63.1°F	1630Z	
10/9/15	1634		RECOVERED FLIGHT 620 DUE TO THREAT OF IMMINENT LIGHTNING STRIKES IN THE AREA. UPON MOORING INTO THE NOSE LATCH, TELEMETRY DISPLAYED ALL THREE LATCH INDICATORS. APPROXIMATELY TEN MINUTES LATER ~~THE~~ THE "PROX" INDICATOR EXTINGUISHED. TROUBLESHOOTING WILL CONTINUE.	2034Z	
10/9/15	1822		W/OUT ADVISING TCOM ARMY DECIDED TO DISCONNECT FIBER W/ STORM IN THE AREA, TO "UNWIND" IT. THIS IS NOT A GOOD PROCEDURE IT RISKS BOTH PERSONNEL AND THE AEROSTAT - ADVISED ARMY TO THAT THIS SHOULD NOT BE DONE.	2222Z	
10/9/15	20:45		ARMY WAS UNABLE TO RECONNECT FIBER; MATT + STEVEN CALLED OVER AND FIBER SET PROPERLY TELEMETRY RESTORED. FIBER WAS ALSO UNWOUND FROM TETHER.	0045Z 10/10	
10/9/15	2200		LAUNCHED TCOM FLT 621 @ 21:38; GOING TO ROLL LOAD CELL CABLE HUNG ON J-RAIL BOLT - CABLE SHEARED AND RIPPED OFF OF LOAD CELL; CABLE WILL HAVE TO BE REPAIRED AND POSSIBLY LOAD CELL AS WELL DEPENDING ON INSPECTION.	SO JESA1528400?? STR 5501 0200Z 10/10	

Date of Entry	Time of Entry	Entry by	Description of work, affected part identification, etc. (reference procedure H463028)	STR # or N/A	Defect# or N/A
10/11/15	1430	(b)(6)	E-TECH's TONNY AND CASEY UNINSTALLED DAMAGED LOAD CELL (SN: 1293383) AND LOAD CELL CABLE (4D0125SG01) AND INSTALLED THE LOAD CELL (SN. 1279947) AND LOAD CELL CABLE FROM SYSTEM 1. OPERATIONAL TEST SATISFACTORY.	JO JES#528400-9 STD 5581	1830Z
10-11-15	1600		LAUNCHED FLIGHT 622 AT 1537. LIFT: 3085 LBS		2000Z
10-11-15	1632		REACHED ~~ALT~~ 9999' TETHER DEPLOYED 17.1 KTS / 36.5° / 12,950 CP NOTICED ON OUTHAUL PINK TAPE @ 6008'. HAND WINCH STOP OUTHAUL, REMOVED TAPE TO INSPECT. FOUND NO ISSUES.		2032Z
10/12/15	1452		IN REGARDS TO THE LOG ENTRY ON 10/9/15 AT 1634, SHORTLY AFTER THE ISSUE WITH THE PROX LIGHT WAS LOGGED, THE INDICATOR RE-LIT AND ALL THREE INDICATORS REMAINED LIT UNTIL THE LAUNCH OF FLIGHT 622. ALSO, THE BLOWER #2 ISSUE LOGGED ON 10/5/15 SEEMS TO HAVE BEEN A MOISTURE ISSUE, AS IT HAS NOT REOCCURED SINCE. WE WILL BE RETURNING ALL ASSOCIATED PARTS THAT WERE ISSUED BACK TO THE WAREHOUSE.		1852Z
10/12/15	1600		TETHER MOVE TO 9700'. CP 13,772 / WINDS 24.5 KTS / TEMP 52.5°F		2000Z
10/13/15	0605		last tether Log move was at 11.56 pm (23.56)		1005Z
10/13/15	0650		Tether Move to 4818' / CP 13454lb / Temp 58°F / Winds 24 Kts		1050Z

Page closed by (QA): (b)(6) Date: 10/13/15

Date of Entry	Time of Entry	Entry by	Description of work, affected part identification, etc. (reference procedure H463028)	STR # or N/A	Defect# or N/A
10/13/15	10.42	[redacted] (b)(6)	Latched at 08.26 1226 Ending Flight 622	1442z	
10/13/15	10.44		unlatched at 09.52 For Cert Flight 623	1444z	
10/13/15	10.45		Latched at 10.15 to End Cert Flight 623	1445z	
10/13/15	1134		Put Raytheon in Wind Screen to work on payload	1534z	
10/13/15	1400		Took Raytheon out of Wind Screen at 1400	1800z	
10/13/15	1405		Power Went out at 1345 Gen's Kicked on Lost 60 Hz to mooring System	1805z	
10/14/15	0400		LATE ENTRY WAS ON OTHER SITE TCOM FLT 624 LAUNCHED @ 18:59 LCL ON 10/13. NO TCOM PRESENCE ON SITE DUE TO 400 HZ LOSS @ GQ. DURING OUTHAUL ARMY PD THOUGHT HE HEARD NOISES AND DIDN'T LIKE THE WAY THE TETHER WAS WRAPPING ON DRUM. TCOM CREW LEFT GQ TO ASSESS THE SITUATION. UPON INSPECTION ALL NORMAL NO ISSUES OUT HAUL CONT TO 780 FT. @ 0230 LCL TETHER MOVE FOR SOME REASON. TETHER DEPLOYED NOW 7003 FT TPU INDICATING GMP. PRESSURE SENSOR FAILURE ON/OFF/ON/OFF WILL TROUBLESHOOT UPON NEXT RECOVERY. ALSO OF NOTE CP TENSION CONT. TO FLUX EVEN NOW W/ GQ LOAD CELL AND CABLE.	2259z-10/13 0800z	

Page signed by (QA): Date:

Date of Entry	Time of Entry	Entry by	Description of work, affected part identification, etc. (reference procedure H463028)	STR # or N/A	Defect# or N/A
10/19/15	1204	(b)(6)	Tether Move to 7503	16042	
10/19/15	1205		Began inhaul of tether for Cert flights latched at 1216 to End Flight 624.	16052	
10/19/15	1215		Army Started doing preflight unlatched at 1235 to start Cert Flight 625	16152	
10/19/15	1305		Latched at 1305 ending Cert Flight 625	17052	
10-14-15	1430		Mil Air arrived on site to change out faulty ECU compressor relay switch. Unit changed out and tested 4.0. Rep also found ECU low on Freon and filled.	18502	
10-14-15	1755		Launched TCOM flt 626 at 1748L for Army Cert flt Recovered TCOM flt 626 at 1805L Flt time 1.26 hrs Total flt time = 7051.69 Tot APG time = 744.13	21552	
10/14/15	2026		TECH'S CLEARED TPIU FOR H_2O IN TYGON - NONE NOTICED POSSIBLE MOISTURE OBSERVED IN LINES ON THE FIN ANOMALY/SPOT WE WANTED TO SNOOP AND ~~PREFORM~~ PREFORM ADDITIONAL INSPECTIONS BUT HOSAGE INOP - SNOOPING NOT POSSIBLE.	00262	10/15
10/14/15	2036		LAUNCHED TCOM FLT 627 TO 8326 MD / 13145 / 27 OKTS / 26.9°C LIFT V 36,912 - 454	00362	10/15

Page closed by (QA): _____ Date: _____

Date of Entry	Time of Entry	Entry by	Description of work, affected part identification, etc. (reference procedure H463028)	STR # or N/A	Defe or N
10/14/15	9:30	(b)(6) [redacted]	Tensioner on ball screw was making some clinking noises. Took off cover and chain appears to be miss alined to the left. Tried realligning but I don't feel comfortable adjusting the tensioner, mid flight	STR 5593. 1300Z	
10/14/15	0401		RECOVERED TCOM EIT 627 @ 04:33 LCL - PLATFORM GOOD ARMY NEEDS TO RELOAD KEYS @ 06:00	0851Z	
10/15/15	0705		Inspected level wind tension sprocket and found sprocket teeth riding on inboard chain link. Reset set collar to allow chain move off chain link and center. Will observe during next tether movement to ensure adjustment worked Start time 0655 End time 0715	STR 5593 1105Z	
10/15/15	0800		During start of shift, noted MECU fault alarm. Upon inspection noted that MECU on switch on LTA panel was in "off" position. Need to remind Army that for MECU to work, must be in "on" position. Once in "on" position fault cleared Start time 0750 end time 0800	1200Z	
10/15/15	0810		Inspected Nose latch due to Nose latch alarm. When moored and in "neutral" position alarm illuminated. When nose attitude changes - or + light goes out. Adjusted nose "probe" latch sensor while moored and light goes out however light illuminates after several minutes. Need to further investigate Nose latch sensor	STR 5590 1210Z	

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Date of Entry	Time of Entry	Entry by	Description of work, affected part identification, etc. (reference procedure H463028)	STR # or N/A	Defect# or N/A
10-15-15	1100	(b)(6)	Launched TCOM flt 628 at 1048Z Lift check 31,087 Climbed to 8000'. Level wind sprocket tensioner still makes occasional "pop + clicks" will further investigate	STR 5593 1500Z	
10-15-15	1155		R/R MMS top hatch gas strut. Install hel.-coils on upper attachment bracket of hatch. Check 4.0 Start time 1125 End time 1155	IO JES A1528400101 STR 5592 1555Z	
10/15/15	1420		TETHER MOVE TO 5999'/CP 13,505/WINDS 21.4 KTS/TEMP 54.7°F LATE ENTRY.	1820Z	
10/15/15	2220		TETHER MOVE TO 6251'/CP 16,100/WINDS 37.7 KTS/TEMP 37.9°F	0220Z 10/16	
10/16/15	0400		TETHER MOVE TO 6500'/CP 16,676/WINDS 42.3 KTS/TEMP 43.7°F	0800Z	
10/16/15	0914		Tether MOVE to 9202'/CP 15037/Winds 37.7 Kts/Temp 35.0°F	1314Z	
10/16/15	0917		Late Entry For 10-15-15 Went up tower at 15:00 to look at Center prox. Censor it looks messed up on the end so it need to be replaced (Drawing 3D16580 NHA) F/N 27 3 wire D/C inductive Prox Sensor Part# 871C-DT 2NP12-U2 Work tasted About 30 min's	open 30 1317Z	
10/16/15	10.11		Lost 60 Hrz at 1000 Hours did not loose 400 Hrz	1411Z	

Page closed by (QA): _____ Date: _____

Date of Entry	Time of Entry	Entry by	Description of work, affected part identification, etc. (reference procedure H463028)	STR # or N/A	Defect# or N/A
			Blank		

Date of Entry	Time of Entry	Entry by	Description of work, affected part identification, etc. (reference procedure H463028)	STR # or N/A	Defect# or N/A
10-16-15	1430	(b)(6)	Completed prep for Hyd Flush Unit. Added 60 gal. Requested another 55gal to be delivered to site	18302	
10-16-15	1495		Received Nose Prox Sensors. Parts are on hand for install 10/17/15 AM	18452	
10-16-15	1445		Tether move to determine Line of Site minimum altitude with JDOC. Went down to 2500 and back up to 9004' CP 14133' / Winds 29.5 Kts / Temp 27.7°F	18452	
10-16-15	1445		Received APCU spare (in high bay). Suspect bad APCU causing Emp Failure alarms. Need to further trouble shoot	18452	
10-16-15	1530		A/B Humidity alarm illuminated. Steady on for minutes then goes out.	19302	
10/14/15	2300		TETHER MOVE TO 8750' / CP 14,885 / WINDS 33.3 KTS / TEMP 26.8°F	03002	10/17
10/15/15	1440		TETHER MOVE TO 5494' / CP 15294 / WIND 27.2 / TEMP N/A INSTRUCTED TO GET OUT OF ROUGH AIR AND BELOW CLOUD DECK IN <32°F CONDITIONS AMB TEMP AND HE TEMP FLUX WIDELY - ADDITIONALLY PRESSURE CONTROL SWITCHED TO CYCLING MOMENTARILY - WILL CHANGE TRIO + CHECK FOR H_2O IN PRESSURE LINES WHEN NEXT RECOVERY. (ICING REPORTED IN AREA BTWN 60-90K')	18402	

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Date of Entry	Time of Entry	Entry by	Description of work, affected part identification, etc. (reference procedure H463028)	STR # or N/A	Defect# or N/A
10/17/15	2305	(b)(6)	TETHER MOVE TO 5250'/CP 14,127/WINDS 27.2 KTS/TEMP 31.1°F	0305Z	
10/18/15	09:03		TETHER MOVE TO 9601/CP 14436/WIND 30.4/TEMP 7-15°C(?)	1303Z	
10/18/15	13:02		ADVISED ARMY FD TO INHAUL - BALLOON IN CLOUDS TEMP 13°F	1702Z	
10/18/15	13:20		INHAULED TO 5394 TFD - CLEAR OF CLOUDS - ICING REPORTED IN AREA FROM 6K - 9K SHOULD BE ABLE TO OUTHAUL AFTER DARK. (CLEAR SKY)	1720Z	
10/18/15	2115		TETHER MOVE TO 5651'/CP 14,454/WINDS 31.4 KTS/TEMP 26.4°F	0015Z 10/19	
10/19/15	0500		TETHER MOVE TO 5900'/CP 14,081/WINDS 27.6 KTS/TEMP 20.9°F	0400Z	
10/19/15	0731		Tether move to 7662	1321Z	
10-19-15	1900		Replaced transzorb CR43 (P/N. 15KP33) in FITSV #1 (S/N: M00 2281).	2300Z	
			Replaced transzorbs CR218 (P/N. 15KP130C), and CR186 - CR189 (P/N. 15KP220C) in FITSV #1 (S/N: M00 2282). No issues. These units need to be installed upon next maintenance period to verify HCV circuit breakers no longer trip. Job order # 152820004		
			Start time: 1400 End time: 1900	1800Z 2300Z	

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Date of Entry	Time of Entry	Entry by	Description of work, affected part identification, etc. (reference procedure H463028)	STR # or N/A	Defect# or N/A
10-19-15	1300 to 2200	(b)(6)	Started Flushing System at 1300. Sucessfully used Compressed tank to blow out certain parts of system after blowing out contaminated fluid started to hook up the Flushing unit and realized we did not have nessacary fittings. Reconnected system & refilled with hydrolic fluid, turned on HPU. System is still Considered Contaminated but will Propery work during Inhaul for the time being. Ended at 2200		17002 to 02002 10/20
10-20-15	0155		Tether Move 9999 Ft / CP 12703 / Temp 40.7°F / Wind 25.5 Kts		0555z
10/20/15	0750		Tether move to → 9877 FTD / CP 13,550 / TEMP 41.2°F / WIND 12.1 KTS		1250z
10/20/15	1730		Tether move 9997' / CP 12410 / Temp 47.7°F / Winds 23.4 Kts		2130z
10-21-15	0115		Tether move to 9209' / CP 11757 / Winds 1.3 Kts / Temp 44.2°F		0515z
10/21/15	0918	(b)(6)	Tether move 10000' / CP 13320 lb / Temp. 53.3°F / Wind 19.1 Kts		1318z
10-21-15	1715		Tether move to 9849' / CP 13159 / Winds 25.1 Kts / Temp 42.1°F		2115z
10/22/15	0115		Tether move to 9244' / CP 11370 / Winds 9.5 Kts / Temp 45.2°F		0515z
10/22/15	0915		TETHER MOVE TO 9601' / CP 13,631 / WINDS 23.7KTS / TEMP 53.4°F. ARMY DOING QUARTERLY MAINTENANCE, WHICH INCLUDES TESTING E-STOPS WHILE OUTHAULING. ALL E-STOPS VERIFIED TO WORK CORRECTLY.		1315z

Page closed by (QA) (b)(6) Date: 10/22/15

Date of Entry	Time of Entry	Entry by	Description of work, affected part identification, etc. (reference procedure H463028)	STR # or N/A	Defect# or N/A
10/22/15	1811	(b)(6)	Tether move 10000' / cp 16091 lb / wind 41.2 kts / Temp 47.7°F		
10-22-15	2320		Changed gear oil in rotary drives 1+2 with 80W-90 oil. Used approx 5 qts. ea for both drives combined Start 2045 Stop 2315	STR 5598	
10/23/15	0213		Tether move to 9819 FT / cp 14035 lb / Temp 44.9°F / wind 35.2 kts		
10-23-15	0940		INSPECTED CLOSE HAUL SHEAVES. DISASSEMBLED BOTH LORED PINS AND ADJUSTED SHIMS. BOTH SPIN FREELY. INSPECTED NOSE LATCH. SHOWING SIGNS OF WEAR BUT NOT ENOUGH TO DEGRADE THE NOSE LINE YET. FURTHER WORK MIGHT BE NEEDED AS MORE FLIGHTS ARE LAUNCHED/RECOVERED		
			Start: Stop:		
10/23/15	1004		TETHER MOVE TO 9980' / CP 13,164 / WINDS 30.4 KTS / TEMP 49.6°F		
10-23-15	1810		Tether move to 9649' / CP 128337 / winds 25.0 kts / Temp 47.2°F		
10/24/15	0214		Tether move to 9200' / cp 11172 / winds 9.8 kts / Temp 46.7°F		
10/24/15	1006		TETHER MOVE TO 9697' / CP 13,396 / WINDS 9.6 KTS / TEMP 58.3°F		
10-24-15	1500		REMOVED BOTH CLOSE HAUL SHEAVES AND REPLACED BEARINGS. REINSTALLED SHEAVES. NO ISSUES.		

(b)(6) Date: 10/26/15

Date of Entry	Time of Entry	Entry by	Description of work, affected part identification, etc. (reference procedure H463028)	STR # or N/A	Defect# or N/A
10/24/15	1707	(b)(6)	Tether move at (1654) to 9249 / cp 13520 / wind 22.5 Kts / Temp 52.5°F		
10-24-15	2200		System pitched to 22.3°. Needs windscreen inspection on next recovery		
10-25-15	0200		Tether move to 8999 / cp 13140 / winds 20.4 Kts / Temp 43.7°F		
10-25-15	1020		TETHER MOVE TO 9299' / CP 14410 / WINDS 35.3KTS / TEMP 42.6°F		
10-25-15	1250		CONDUCTED SEVERAL TESTS TO TROUBLESHOOT THE OTH/07 ALARMS. FOUND THAT WHEN BLOWERS 3 AND 4 ARE COMMANDED ON, THUS OPENING CHECK VALVES 3 AND 4, THE ALARM IS NO LONGER DISPLAYED. IT MIGHT BE BENEFICIAL TO INSPECT THE BALLONET AND PLENUM DUCTS TO ENSURE THERE ARE NO RESTRICTIONS PREVENTING AIR FLOW TO EMPENNAGE PORTION OF AEROSTAT. Start — Stop —		
10-25-15	1430		COMPLETED ALL PMS FOR MMS EXCEPT FOR THE NOSE LATCH. THE NOSE LATCH COULD NOT BE COMPLETED DUE TO THE SWARM OF BEES.		
10-25-15	1830		Tether move to 9541' / cp 12067 / winds 17.3 Kts / Temp 38.7°F Start — Stop —		
10/26/15	0100		Tether move to 9200' / cp 13700 / winds 29.6 Kts / Temp 42.0°F		
10-26-15	0900		TETHER MOVE TO 9326' / CP 14115 / WINDS 24.7KTS / TEMP 35.3°F		

Page closed by (QA) (b)(6) Date 10/27/15

Date of Entry	Time of Entry	Entry by	Description of work, affected part identification, etc. (reference procedure H463028)	STR # or N/A	Defect# or N/A
10-26-15	1615	(b)(6)	TETHER MOVE 8899' / CP 12683 / WINDS 9.4KTS / TEMP 38.9°F		
10-27-15	0050		Tether move to 8649 '/CP 11563 /Winds 8.4 Kts/Temp 39.5°F		
10/27/15	0900		TETHER MOVE TO 9999' / CP 12,131 / WINDS 10.2 KTS / TEMP 38.3°F		
10/27/15	1615		TETHER MOVE TO 7998' / CP 13,393 / WINDS 16.4KTS / TEMP 48.8°F		
10/27/15	2245		Tether Move To 6506' / cp 14451 / Winds 30.5 Kts / Temp 45.3°F		
10/28/15	0100		TETHOR MOVE TO 6602/CP 6,104/WIND 38.3/TEMP 46.0°F		
10/28/15	1630		AT APPROX 11:30 CCL TETHOR FAILED IN TURBULANCE - INVESTIGATION TO FOLLOW. SIGNIFICANT DAMAGE TO MULTIPLE AREAS AND COMPONENTS ON THE MMS		

[redacted] Date: Page - 60 -

EQUIPMENT INSPECTION AND MAINTENANCE WORKSHEET

For use of this form, see DA PAM 750-8; the proponent agency is DCS, G-4.

1. ORGANIZATION	2. NOMENCLATURE AND MODEL
A-3RD ADA (JLENS)	MOBILE MOORING STATION (MMS)

3. REGISTRATION/SERIAL/NSN	4a. MILES	b. HOURS	c. ROUNDS FIRED	d. HOT STARTS	5. DATE	6. TYPE INSPECTION
0002					22 OCT 15	Quarterly

7. APPLICABLE REFERENCE

TM NUMBER	TM DATE	TM NUMBER	TM DATE
JLENS-A-M0-60-0000-00A-300A-A	20141205	JLENS-A-M0-60-0001-00A-300A-A	20141205

COLUMN a – Enter TM item number.
COLUMN b – Enter the applicable condition status symbol.
COLUMN c – Enter deficiencies and shortcomings.
COLUMN d – Show corrective action for deficiency or shortcoming listed in Column c.
COLUMN e – Individual ascertaining completed corrective action initial in this column.

STATUS SYMBOLS

"X" – Indicates a deficiency in the equipment that places it in an inoperable status.

CIRCLED "X" – Indicates a deficiency, however, the equipment may be operated under specific limitations as directed by higher authority or as prescribed locally, until corrective action can be accomplished.

HORIZONTAL DASH "(-)" – Indicates that a required inspection, component replacement, maintenance operation check, or test flight is due but has not been accomplished, or an overdue MWO has not been accomplished.

DIAGONAL "(/)" – Indicates a material defect other than a deficiency which must be corrected to increase efficiency or to make the item completely serviceable.

LAST NAME INITIAL IN BLACK, BLUE-BLACK INK, OR PENCIL - Indicates that a completely satisfactory condition exists.

FOR AIRCRAFT - Status symbols will be recorded in red.

ALL INSPECTIONS AND EQUIPMENT CONDITIONS RECORDED ON THIS FORM HAVE BEEN DETERMINED IN ACCORDANCE WITH DIAGNOSTIC PROCEDURES AND STANDARDS IN THE TM CITED HEREON.

8a. SIGNATURE (Person(s) performing inspection)	8b. TIME	9a. SIGNATURE (Maintenance Supervisor)	9b. TIME	10. MANHOURS REQUIRED
SSG (b)(6) OSC/TS TRK	1340E			
SPC (b)(6) 22OCT15	23142			

TM ITEM NO. a	STATUS b	DEFICIENCIES AND SHORTCOMINGS c	CORRECTIVE ACTION d	INITIAL WHEN CORRECTED e
20		HPUs: With the HPUs off, exercise all the HPU change over panel valve handles. Turn each handle	Exercised all handles	(b)(6)
		several times ensuring complete freedom of movement. Return handles to original position when		
		complete.		
27		CAPSTAN: Lubricate the upper capstan drum load sensing sheave and idler sheave. Lubricate the upper	LUBRICATED	(b)(6)
		and lower capstan drum pillow block bearings, high and low tension sheaves, and the high and low tension		
		idler sheave.		
55		MOORING TOWER AND SAFETY RAILS: Inspect all placards for legibility	Checked all Rails and Placards	(b)(6)
56		GROUNDING SYSTEM: Visually inspect grounding ring for cracks, damage or corrosion	Inspected	
57		Visually inspect all copper wire connections for corrosion	inspected	
66		ROTARY DRIVE DAMPENING DEVICE: Inspect for hydraulic leaks, loose or missing hardware	Inspected	
68		MACHINERY ENCLOSURE CENTRAL BEARING: Lubricate MEC bearing	TCOM SHAWN MONAHAN INSPECTED	
69		NOSE LINE WINCH/CLOSE HAUL WINCH APU EMERGENCY STOP BUTTON: Energize	EMERGENCY STOPS OPERATED FOR	
		HPU. Operate winch control lever in inhaul/outhaul. have NLW/CHW operator press the emergency stop	NLW/CHW. E-STOPS OPERATED	
		button. Verify control lever does not operate winch in inhaul/outhaul mode. Reset winch.	CORRECTLY	

EQUIPMENT INSPECTION AND MAINTENANCE WORKSHEET

For use of this form, see DA PAM 750-8; the proponent agency is DCS, G-4.

1. ORGANIZATION	2. NOMENCLATURE AND MODEL
A-3RD ADA (JLENS)	MOBILE MOORING STATION (MMS)

3. REGISTRATION/SERIAL/NSN	4a. MILES	b. HOURS	c. ROUNDS FIRED	d. HOT STARTS	5. DATE	6. TYPE INSPECTION
0002						Monthly

7. APPLICABLE REFERENCE

TM NUMBER	TM DATE	TM NUMBER	TM DATE
JLENS-A-M0-60-0000-00A-300A-A	20141205	JLENS-A-M0-60-0001-00A-300A-A	20141205

COLUMN a – Enter TM item number.
COLUMN b – Enter the applicable condition status symbol.
COLUMN c – Enter deficiencies and shortcomings.
COLUMN d – Show corrective action for deficiency or shortcoming listed in Column c.
COLUMN e – Individual ascertaining completed corrective action initial in this column.

STATUS SYMBOLS

"X" – Indicates a deficiency in the equipment that places it in an inoperable status.

CIRCLED "X" – Indicates a deficiency, however, the equipment may be operated under specific limitations as directed by higher authority or as prescribed locally, until corrective action can be accomplished.

HORIZONTAL DASH "(-)" – Indicates that a required inspection, component replacement, maintenance operation check, or test flight is due but has not been accomplished, or an overdue MWO has not been accomplished.

DIAGONAL "(/)" – Indicates a material defect other than a deficiency which must be corrected to increase efficiency or to make the item completely serviceable.

LAST NAME INITIAL IN BLACK, BLUE-BLACK INK, OR PENCIL - Indicates that a completely satisfactory condition exists.

FOR AIRCRAFT - Status symbols will be recorded in red.

ALL INSPECTIONS AND EQUIPMENT CONDITIONS RECORDED ON THIS FORM HAVE BEEN DETERMINED IN ACCORDANCE WITH DIAGNOSTIC PROCEDURES AND STANDARDS IN THE TM CITED HEREON.

8a. SIGNATURE (Person(s) performing inspection)	8b. TIME	9a. SIGNATURE (Maintenance Supervisor)	9b. TIME	10. MANHOURS REQUIRED
SSG (b)(6) 05OCT15 SPC (b)(6) 05	1919 23142			

TM ITEM NO. a	STATUS b	DEFICIENCIES AND SHORTCOMINGS c	CORRECTIVE ACTION d	INITIAL WHEN CORRECTED e
1		INTERIOR: Inspect the interior of the machinery enclosure for cleanliness and remove any FOD	free of FOD	(b)(6)
2		Inspect the LTA/LC plumbing and all hydraulic lines, bulkhead fittings, and filters for leaks or damage	no damage	
3		Check that all fire extinguishers are fully charged	fully charged	
4		Inspect the ecu vents and filters for cleanliness. replace filters if necessary	inspected	
6		Check the interior for damaged, peeling paint, damaged insulation, corrosion, and water leaks	no damage	
7		EXTERIOR: inspect the 60 hz transformer and electrical cable for proper connection. Check for	checked	
		wear or damage to the electrical cable insulation		
9		Inspect the outriggers, cribbing, and all hardware for security and corrosion. ensure all cribbing are seated	checked	(b)(6)
		properly /cannot be moved.		
10		Check the tie downs and anchors on the outriggers for security. inspect for loose or missing hardware.	checked	
		corrosion control and care paint for surface condition. clean as required		
11		Check the LTA/LC and ECU air intakes for cleanliness. Clean and remove FOD, mud or dust	checked	
		inspect the LTA/LC sight glasses to verify coolant levels are at proper operating levels. Check the		
		sealant integrity		

TM ITEM NO. a	STATUS b	DEFICIENCIES AND SHORTCOMINGS c	CORRECTIVE ACTION d	INITIAL WHEN CORRECTED e
40		BOOM ASSEMBLY: Inspect working surfaces for cleanliness	inspected	(b)(6)
41		Inspect all boom work platforms, support struts, and hardware for damage, corrosion, and missing	inspected	
		hardware. Ensure all struts are properly pinned and secure		
42		Check flying sheave springs for damaged and functionality.	checked	
43		Inspect security of safety rails, 'J' rails, and work platform	inspected	
44		FLYING SHEAVE: Inspect for freedom of movement		
46		CLOSE HAUL WINCHES: inspect for hydraulic leaks	inspected	
47		Inspect CHWsheaves for freedom of movement	inspected	
48		Inspect spreader beam assemblies for security and corrosion	checked	(b)(6)
50		Inspect all placards for legibility	checked	
51		CHW HPU: Inspect hydraulic fluid through sight glass, fill as necessary	inspected	
52		Inspect for hydraulic leaks, loose or missing hardware	no leaks	
53		Inspect seals for wear, tearing and dry-rot	no wear/tear	
54		MOORING TOWER and SAFETY RAILS: inspect railings, safety chains, and the ladder for loose or	inspected	
		missing hardware, corrosion or damage.		
121		AEROSTAT ASSEMBLY: Forward and aft close haul lines inspection		
127		MMS INTERIOR: Inspect lighting control panel for functionality.	functional	(b)(6)
128		Inspect machinery environmental control unit control panel	MECU CP functional	
129		CLOSE HAUL WINCHES: Move centering springs back and forth to ensure springs work properly.	FMC	
		Inspect centering springs for damage.		
130		MMS EXTERIOR: Inspect electrical cable insulation along length from 60hz pedestal transformer to	No wear/damage	
		machinery enclosure for wear and damage.		
133		MMS INTERIOR: Inspect interior (siding, doors, louvers, etc.) for damage, peeling paint, corrosion,	inspected	
		and water leaks		
134		Visually inspect tether storage drum ECU cooling fan outlet for cleanliness and indications of damage.	checked	
135		Visually inspect capstan ECU cooling fan outlet for cleanliness and indications of damage.	checked	
138		MMS EXTERIOR: Inspect main access door latches and access ladder for damage and deterioration	checked	
		Lubricate door hinges and latches with oil		

TM ITEM NO. a	STATUS b	DEFICIENCIES AND SHORTCOMINGS c	CORRECTIVE ACTION d	INITIAL WHEN CORRECTED e
140		Check enclosure exterior for damage,peeling paint, and corrosion. repair as required.	Checked	(b)(6)
141		Inspect sealant at fitting joints and fastener heads. ensure that hardware is complete and secure.	Inspected	
144		Inspect all railing mounting brackets. Ensure that all hardware is present and secure.	inspected	
145		Inspect hydraulic hoses and filters for leaks. Clean as required.	inspected	
146		Observe sight glass on reservoir inside of boom HPU enclosure and annotate fluid level.	Checked	
147		Observe sight glass on reservoir inside tower HPU and annotate fluid level.	Checked	
148		Inspect boom HPU filter, any accessible hoses, and floor of HPU enclosure for fluid leaks.	Checked	
149		Inspect tower HPU filter, any accessible hoses, and floor of HPU enclosure for fluid leaks.	Checked	
154		TETHER WINCH HPU: Perform a spectroanalysis check by draining 4 to 8 fluid ounces of hydraulic		
		fluid into a clean container that can be sealed. submit fluid sample for analysis if sample is contaminated.		
		contact contractor logistics support (cls)		
155		Exercise eight valve handles on tether HPU change over panel. Rotate handles 1 through 5 to drive 2	exercised	(b)(6)
		position. Starting with handle 1. Exercise handle a minimum of three times returning handle to normal		
		position when exercise has been completed		
156		Exercise three red valve handles on tether HPU change over panel a minimum of three times	exercised	(b)(6)
		returning handles to normal position when exercise has been completed		
157		Inspect all hydraulic hoses and lines for chafing, wear, kinking or dry rot.	inspected	
160		CAPSTAN: Inspect hydraulic motor mounting hardware for security and corrosion.	inspected	
161		Inspect lower and upper drum bearing mounts for security and corrosion.	inspected	
162		TETHER: Inspect boom assembly tether from brush seal to flying sheave for nicks.	checked	
168		WOCC: Replace ECU filter if filter is damaged or cannot be cleaned sufficiently to allow air flow.	inspected	
169		TOWER HPU: perform a spectroanalysis check by draining 4 to 8 fluid ounces of hydraulic fluid into a		
		clean container that can be sealed. Submit fluid sample for analysis.		
171		BOOM ASSEMBLY: Inspect AWP mounting hardware for corrosion,damage, or missing hardware.	Inspected	
172		Inspect tag lines for wear and chafing.	checked	
173		AWP: Perform function checks and routine inspections and lubrication IAW TM	INSPECTED AND LUBRICATED	
178		LTA/LC and MECU: Inspect for coolant fluid leaks. tighten tubing and piping as required leading to	inspected	
		LTA/LC, MECU #1 and MECU #2		

TM ITEM NO. a	STATUS b	DEFICIENCIES AND SHORTCOMINGS c	CORRECTIVE ACTION d	INITIAL WHEN CORRECTED e
179		Verify that LTA/LC and MECU mounting hardware is secure.	verified hardware secure	(b)(6)
180		Visually inspect plumbing for leaks, chafing, wear, or kinking in hoses and piping.	hoses serviceable	
181		Inspect and clean condenser air inlet screen.	inspected	
182		Inspect two MECU air filters ensure one filter in each ECU.	inspected	
183		Inspect all mounting hardware for security, corrosion, and weldment cracks.	inspected	
184		Clean and lubricate automatic lock device on safety belt slide.	LOCK DEVICE LUBRICATED	
189		CLOSE HAUL WINCH HPU: Visually inspect for hydraulic leaks.	inspected	
190		Visually inspect for loose or missing hardware.	inspected	
191		Inspect seals tearing, and dry-rot.	inspected	
192		TOWER SUPPORT STRUTS: inspect struts for security,corrosion, and completeness of hardware.	inspected	
193		GROUNDING SYSTEM: Inspect 60 hz pedestal transformer and 400 hz junction grounding rods for security.	grounding rods secure	

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70		400 HZ CONTROL PANEL: Inspect	inspected	
72		AC OUTLETS: Inpect	inspected	
73		BOOM AERIAL LIFT POWER AND COMMUNICATIONS CABLES: Inspect	inspected	
74		BOOM UMBILICAL CABLES. FIBER OPTIC AND 400 HZ (2): Inspect	inspected	
75		EMERGENCY STOP: Verify operation	OPERATION VERIFIED	(b)(6)
76		HIGH VOLTAGE JUNCTION BOX: Inspect for operability	inspected	
77		HIGH VOLTAGE SLIP RING: Inspect for operability	inspected	
79		HPU CONTROLLERS (4): Verify operation	OPERATION VERIFIED	
80		JUNCTION BOXES: Inspect for operability	inspected	
81		MOTOR CONTROL CENTER (MCC): Inspect for operability	inspected	
90		AEROSTAT ASSEMBLY: Confluence/mooring line inspection		
103		Inspect main close haul lines		
152		FLEET ANGLE SENSOR: Inspect for operability	inspected	
158		CAPSTAN: Inspect motor mounting hardware for security and corrosion.	inspected	(b)(6)
163		TETHER STORAGE DRUM: Inspect drum pillow block bearings for indications of bearing damage.	inspected	
164		A light coating of grease should exist on journal without any indications of metal damage on journal.	inspected	
		Inspect bearing pedestal on side of fiber optic rotary joint (FORJ) for weld cracks and material distortion.		
170		TOWER HPU: Inspect and lubricate drum assembly bearing with lithium grease	LUBRICATED	(b)(6)
185		NOSE LATCH: Inspect for loose or missing hardware. (Must be done while elevated)		
186		Lubricate internal gears with open gear lubricant. (Must be done while elevated)		
187		Lubricate 18 zerk fittings with lithium grease located on enclosure turntable bearing (Must be done while	[redacted]	(b)(6)
		elevated)		

TM ITEM NO. a	STATUS b	DEFICIENCIES AND SHORTCOMINGS c	CORRECTIVE ACTION d	INITIAL WHEN CORRECTED e
12		Inspect the integrity of the lta/lc and ecu mounting brackets; inspect the locking hardware on ecu NBC	checked	
		filters for security and proper sealing. inspect the nbc blower located on boom for security and cleanliness		
13		Inspect the main access door, top hatch;occ door, and all access ladders for damage. ensure the ratchet	no damage, secure	
		straps on the boom end ladder are not loose and hold the ladder securely in place		
14		Check the exterior for damage, peeling paint, corrosion and water leaks. leaks should be repaired	checked	
15		Inspect all safety railings and chains located on the mms enclosure, boom, and any work platforms	checked	
17		Verify that all the lighting stations operate	Verified	
18		AWP: Inspect guide rails for FOD. Perform daily inspection recommended by AWP manufacturer	inspected	
		inspect AWP for side to side freedom of movement		
19		HPU: inspect the hpu reservoirs for leaks and proper fluid levels. add fluid if necessary.	fluid level in spec	
21		CAPSTAN: Inspect for hydraulic lines for leaks, chafing or kinking	no leaks	
24		Inspect the load cell cable for security	secure	
25		Visually inspect the capstan drums mounting hardware for security	inspected	
26		With the HPUs off, exercise capstan emergency panel change over valves ensuring freedom of	exercised all handles	(b)(6)
		movement. also check that the gauges read "0" and that the break: release pump handle is secure.		
29		TETHER STORAGE DRUM: Inspect for hydraulic leaks	no leaks	
30		Visually inspect level wind for correct alignment . inspect the rollers on fleet angle rocker for damage	inspected	
		and wear. Check that the shoulder screw holding the fleet angle rocker to the level wind is not damaged		
33		WINCH OPERATOR CONTROL CAB: inspect the console for cleanliness; clean all windows and sky	WOCC serviceable	
		dome mirror and if necessary, the telemetry display screens.		
34		Perform function check on control levers and perform lamp test to ensure functionality of control panel lights	checked	
35		Inspect TDS display screens for functionality and damage. Ensure that the screens dimmer switches	fully functional	
		function correctly/that the screens return to full brightness.		
36		NOSE LINE WINCH/HPU: Inspect hydraulic lines for chafing, leaks, or dry rot	checked	
37		Visually inspect winch hydraulic fluid reservoir level using the sight glass on the reservoir	checked	
39		BOOM ASSEMBLY: Visually inspect all hydraulic and LTA/LC hoses and piping for leaks, kinks or	inspected	
		damage		

DEPARTMENT OF THE ARMY
UNITED STATES ARMY COMBAT READINESS CENTER
FORT RUCKER, ALABAMA 36362-5363

REPLY TO

CSSC-O

23 November 2015

MEMORANDUM FOR Commander (b)(3)
Aberdeen Proving Grounds, Maryland

SUBJECT: Release of Aerostat site and materials

1. Aerostat, SN 74M002, the associated MMS, all related mission equipment, and personal items associated with CRC Case # 201510281147X74M002 is released to the Commander, (b)(3) for final disposition pending release by the collateral officer.

2. The United States Combat Readiness Center point of contact is CW4 (b)(6) at DSN (b)(6) Com (b)(6) and email (b)(6)

(b)(6)
MAJ, AV
Board President