Project Model summary for BIN-N01-M01

General information				
Project code	BIN-N01-M01			
Project name	Boer in Natuur Maashorst 1			
Location	Slabroek, Maashorst, Netherlands			
Area		24,4	ha	
Duration		12	years	
Holding pool		20%		freed up when measurements confirm projection pathways
Project emissions		20%	LCA estimate	High emissions due to peatland soil with low water level
Total Ecosystem Carbon (TEC)				Above Ground, Below Ground and Soil Organic Carbon, following CDM AR-ACM0003
Baseline TEC		290	tCO2/ha	between 14 and 23g/kg from certified measurements
Projection TEC		695	tCO2/ha	Using CEDA, Soil sample and research data
Construction Stored Carbon	not yet included			Certificates to be modeled and issued separately
Storage potential		**405**	tCO2/ha	Projection -/- baseline
Yearly storage potential		**20**	tCO2/ha/y	
Project storage potential		9.871		storage potential per ha x area
Net storage potential		**7.897**		project storage -/- emissions over 20 years
Holding Pool		**948**		20% of the first 12 years
Ex ante CRCs issued		**3.790**		80% of the first 12 years

Field Code	Field name	Size (ha)	Farmer	Owner	Ownership cont	KML
BIN-N01-M01	Heggenlandschap	18,1	Boer in Natuur	FNS		
BIN-N01-M02	Laag Voedselbos	3,0	Boer in Natuur	FNS		
BIN-N01-M03	Multifunctioneel Bos	2,3	Boer in Natuur	FNS		
BIN-N01-M04	Sparrenbos naar Multifunctioneel Bo	1,0	Boer in Natuur	FNS		

Measuren	Field code	Field	Date	Sample depth	Carbon (g/kg)	Nitrogen	report link	Sample done	Notes		
001	BIN-N01-M01	Heggenlandschap	5-3-2020	30	21			Wageningen University			
002	BIN-N01-M01	Heggenlandschap	5-3-2020	30	15			Wageningen University			
003	BIN-N01-M01	Heggenlandschap	5-3-2020	30	23			Wageningen University			
004	BIN-N01-M01	Heggenlandschap	5-3-2020	30	19			Wageningen University			
005	BIN-N01-M02	Laag Voedselbos	5-3-2020	30	21			Wageningen University			
006	BIN-N01-M02	Laag Voedselbos	5-3-2020	30	12			Wageningen University			
007	BIN-N01-M03	Multifunctioneel Bos	5-3-2020	30	23			Wageningen University			
008	BIN-N01-M03	Multifunctioneel Bos	5-3-2020	30	21			Wageningen University			
009	BIN-N01-M01	Heggenlandschap	5-12-2020	20	14			Wageningen University			
010	BIN-N01-M01	Heggenlandschap	5-12-2020	20	14			Wageningen University			
011	BIN-N01-R01	Reference	5-12-2020	20	36			Wageningen University			
012	BIN-N01-M04	Sparrenbos naar M	5-3-2020	30	36				No sample, so reference used and thus no soil credits		

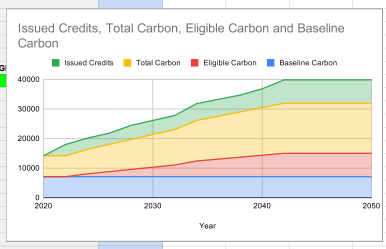
Field #	Field	size (ha)	date	Field CO2	SOC (g/kg from samples)	Sample depth	calc depth (cm)	soil density (g/cm3)	tCO2/ha	(tC/ha)	Reference	Reference CO2
BIN-N01-M01	Heggenlandschap	18,1	5-3-2020	4.889,23	17,7	30	30	1,39	270,12	73,67	36	491,04
BIN-N01-M02	Laag Voedselbos	3,0	5-3-2020	789,53	16,5	30	30	1,45	263,18	71,775	36	491,04
BIN-N01-M03	Multifunctioneel Bos	2,3	5-3-2020	773,67	22,0	30	30	1,39	336,38	91,74	36	491,04
BIN-N01-M04	Sparrenbos naar Multifun	1,0	5-3-2020	491,04	36,0	30	30	1,24	491,04	133,92	36	491,04
Capacity		24,4		11.981,38	18,7	30	30	1,39	284,57	77,60959016	36	491,04
	potential storage CO2 op 24ha		5.038									
	LCA substraction	20%	4.030									
	per year	20 years to get th	202									
	per year per ha		11									
Field #	**Field**	**size (ha)**	**date**	**Field CO2**	**AGB(Above ground Biomass)**			**C density(g/cm3)**	**tCO2/ha**	**(tC/ha)**	**Reference**	**Reference**
BIN-N01-M01	Heggenlandschap	18,1	1-1-2018	66,37	2,0			0,5	3,67	1	103	188,8
BIN-N01-M02	Laag Voedselbos	3,0	1-1-2018	11,00	2,0			0,5	3,67	1	107	196,2
BIN-N01-M03	Multifunctioneel Bos	2,3	1-1-2018	8,43	2,0			0,5	3,67	1	159	291,5
BIN-N01-M04	Sparrenbos naar Multifun	1,0	1-1-2018	49,50	27,0			0,5	49,50	13,5	159	291,5
Capacity		24,4		4.968,33				0,5	5,55	1,512295082	111,0655738	203,6202186
	potential storage CO2 op 24ha		4.833	201,38								
	LCA substraction	20%	3.866									
	per year	20 years to get th	193									
	per year per ha		10,68									
	2022 - 2033 total (12 yrs)	12	4.738									
	holding pool	20%	948									
	Issued 26-6-2022		**3.790**									

Bamboo																
value	**source**	**URL**	Notes													
CEDA aboveground biomass carbon	https://climate.c	https://data.ceda	CEDA 2017 reference coordinates x; y d t/Ha													
SOC	A critical review of the conventional SOC to SOM conversion factor (Geoderma,Volume 156, Issues 3–4, 15 May 2010, Pages 75-83)															
Density	Wageningen Ur	https://edepot.wi	We've added these soil density levels to the calculation factors tab													
		[2]														
Huisperceel four corners					Dood Sparrebos hectare location				t/ha	y	x					
51,696	5,599	51,695	5,606		51,694	5,595			103	51,710	5,593	reference heggenlandschap/24m agroforestry				
51,692	5,599	51,693	5,603						107	51,702	5,607	referentie laag voedselbos/5m agroforestry berries and low trees				
x	y	t/ha	average		x	y	t/ha		159	51,690	5,603	referentie hoog voedselbos/5m agroforestry high trees				
5,599	51,695	0,00	2		5,595	51,694	27									
5,599	51,694	0,00														
5,599	51,693	0,00														
5,599	51,692	8,00														

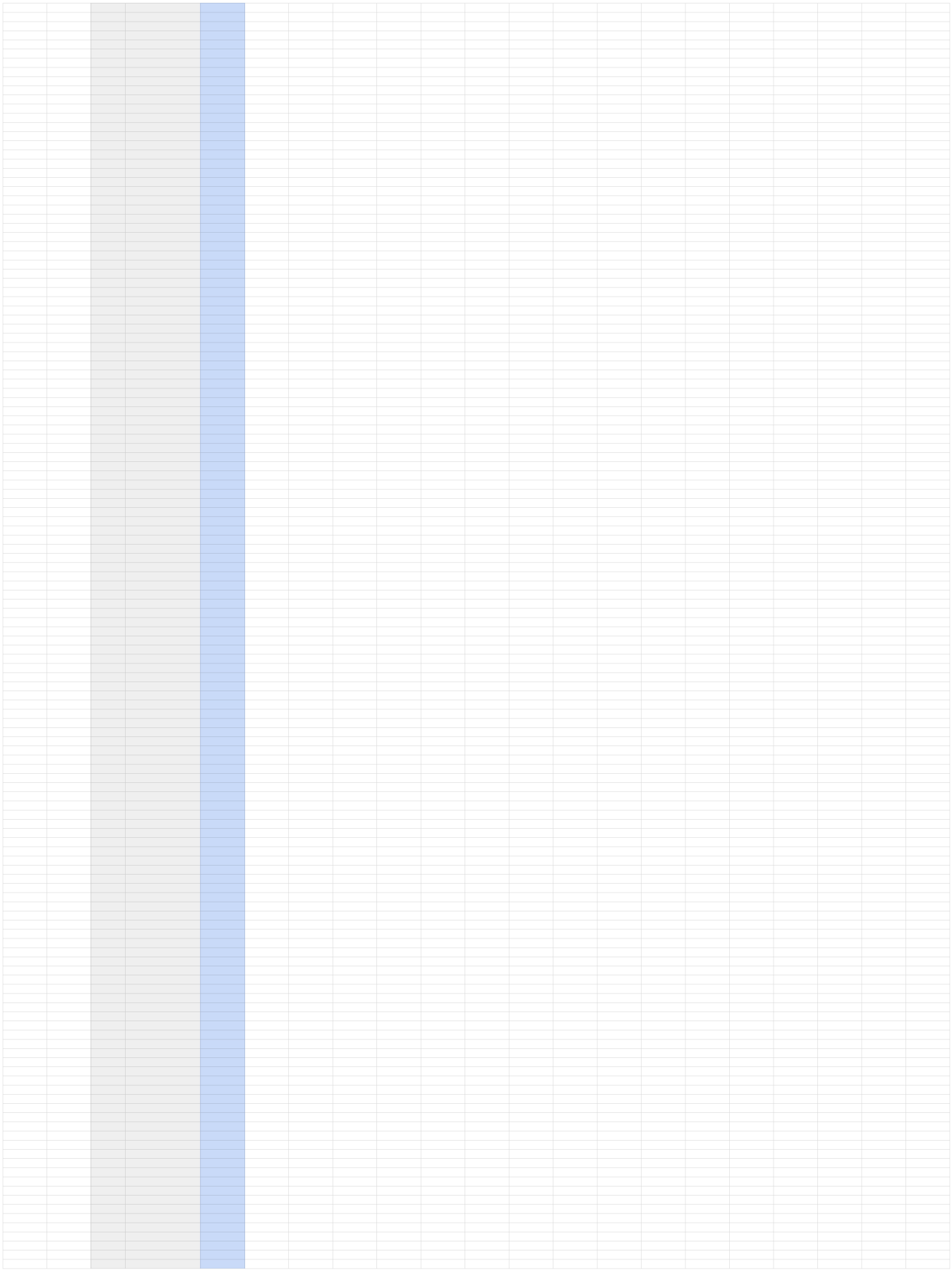
from C to CO2	3,666666667		
soil density [3]	% organic matter	% organic carbon	soil density
1,59	0,5	0,25	1,59
1,52	1,5	0,75	1,52
1,45	2,5	1,25	1,45
1,39	3,5	1,75	1,39
1,34	4,5	2,25	1,34
1,29	5,5	2,75	1,29
1,24	6,5	3,25	1,24
1,18	7,5	3,75	1,18
1,13	8,5	4,25	1,13
1,09	9,5	4,75	1,09
1,05	10,5	5,25	1,05
1,01	11,5	5,75	1,01
0,96	12,5	6,25	0,96
0,93	13,5	6,75	0,93
0,9	14,5	7,25	0,9
0,87	15,5	7,75	0,87
0,84	16,5	8,25	0,84
0,81	17,5	8,75	0,81
0,79	18,5	9,25	0,79
0,77	19,5	9,75	0,77
0,75	20,5	10,25	0,75
0,73	21,5	10,75	0,73
0,71	22,5	11,25	0,71
0,7	23,5	11,75	0,7
0,69	24,5	12,25	0,69
0,67	25,5	12,75	0,67
0,65	27	13,5	0,65
0,62	29	14,5	0,62
0,6	31	15,5	0,6
0,58	33	16,5	0,58
0,56	35	17,5	0,56
0,54	37	18,5	0,54
0,52	39	19,5	0,52
0,5	41	20,5	0,5
0,49	43	21,5	0,49
0,47	45	22,5	0,47
0,46	47	23,5	0,46
0,44	49	24,5	0,44

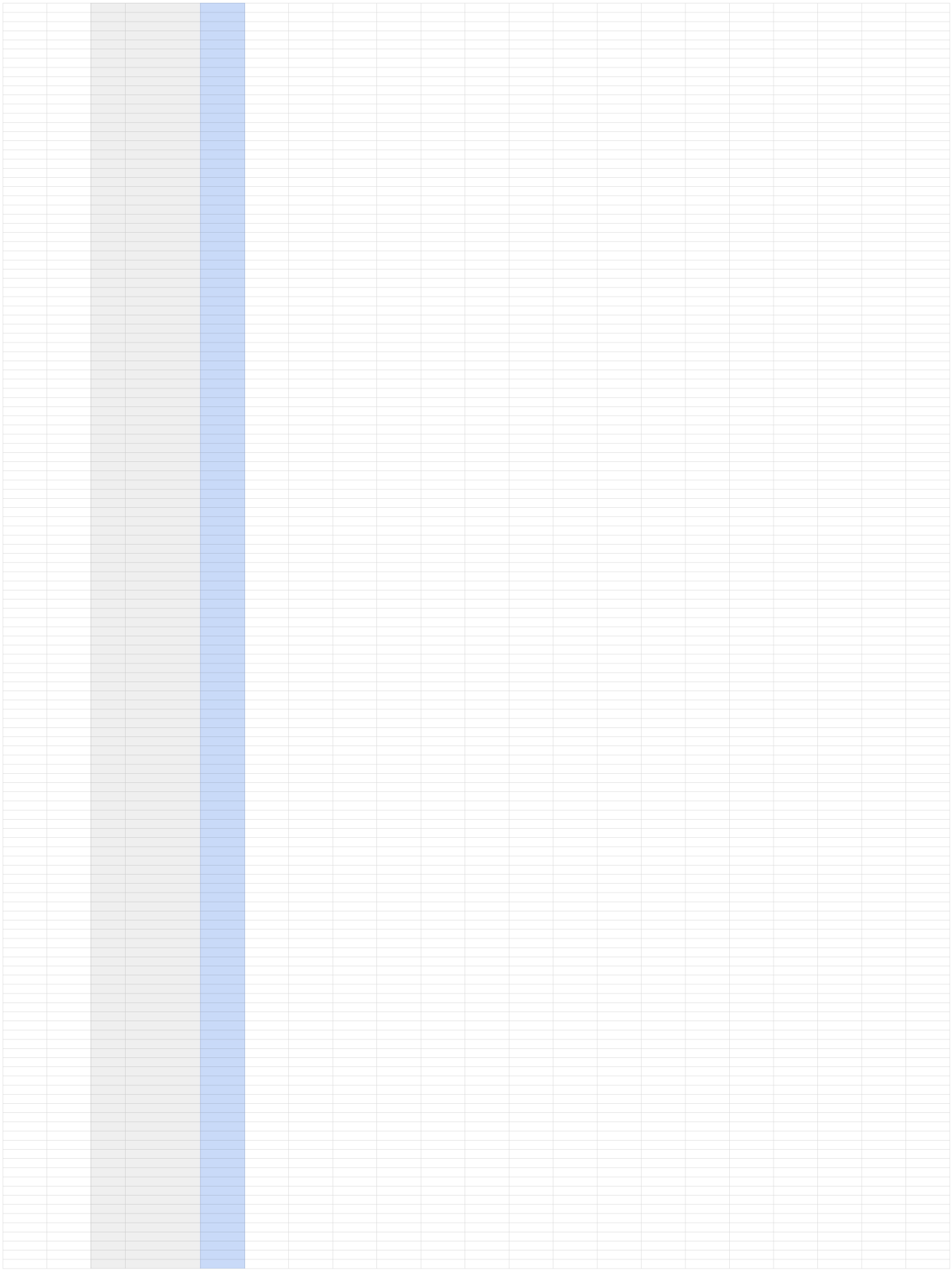
size (ha)	date	Field CO2	SOC (g/kg from samples)	tCO2/ha	Reference	Reference CO2
24,4		11.981,38	18,7	284,57	36	491,04
	5.038					
20%	4.030					
20 years to get th	202					
	11					

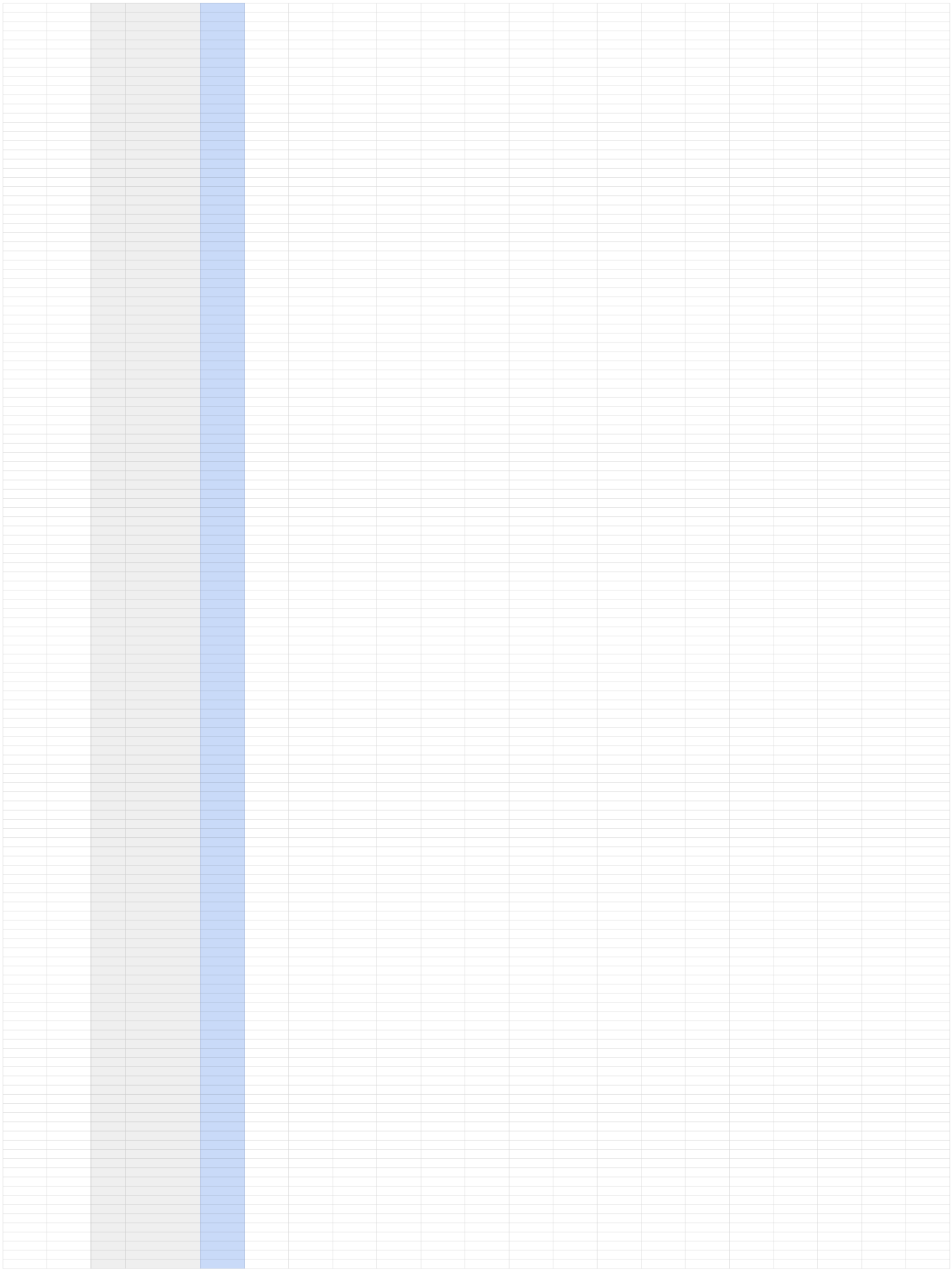
size (ha)	date	Field CO2	AG
24,4		4.968,33	
	4.833		
20%	3.866		
20 years to get th	193		
	10,68		
12	4.738		
20%	948		
	3790,440192		

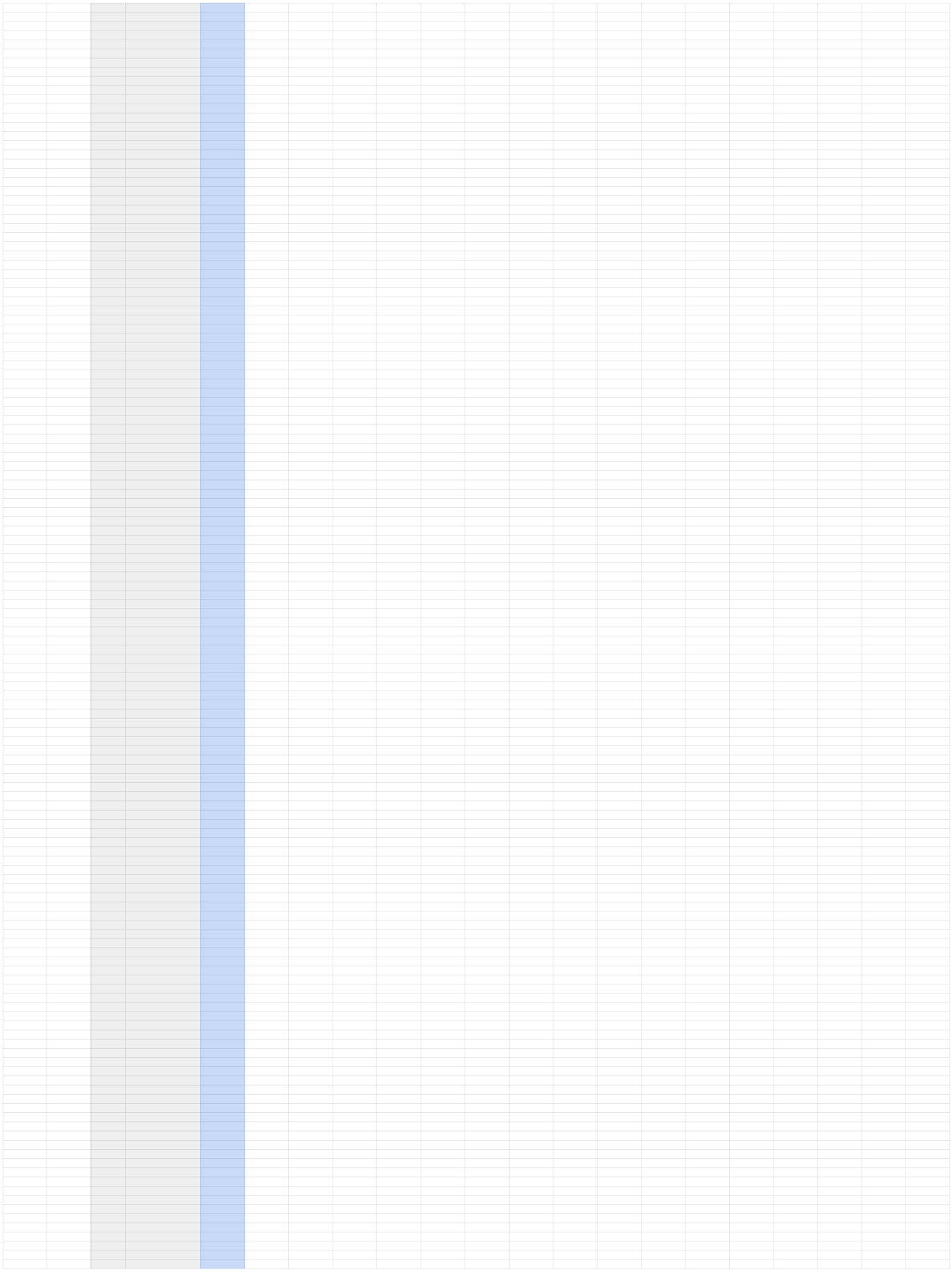


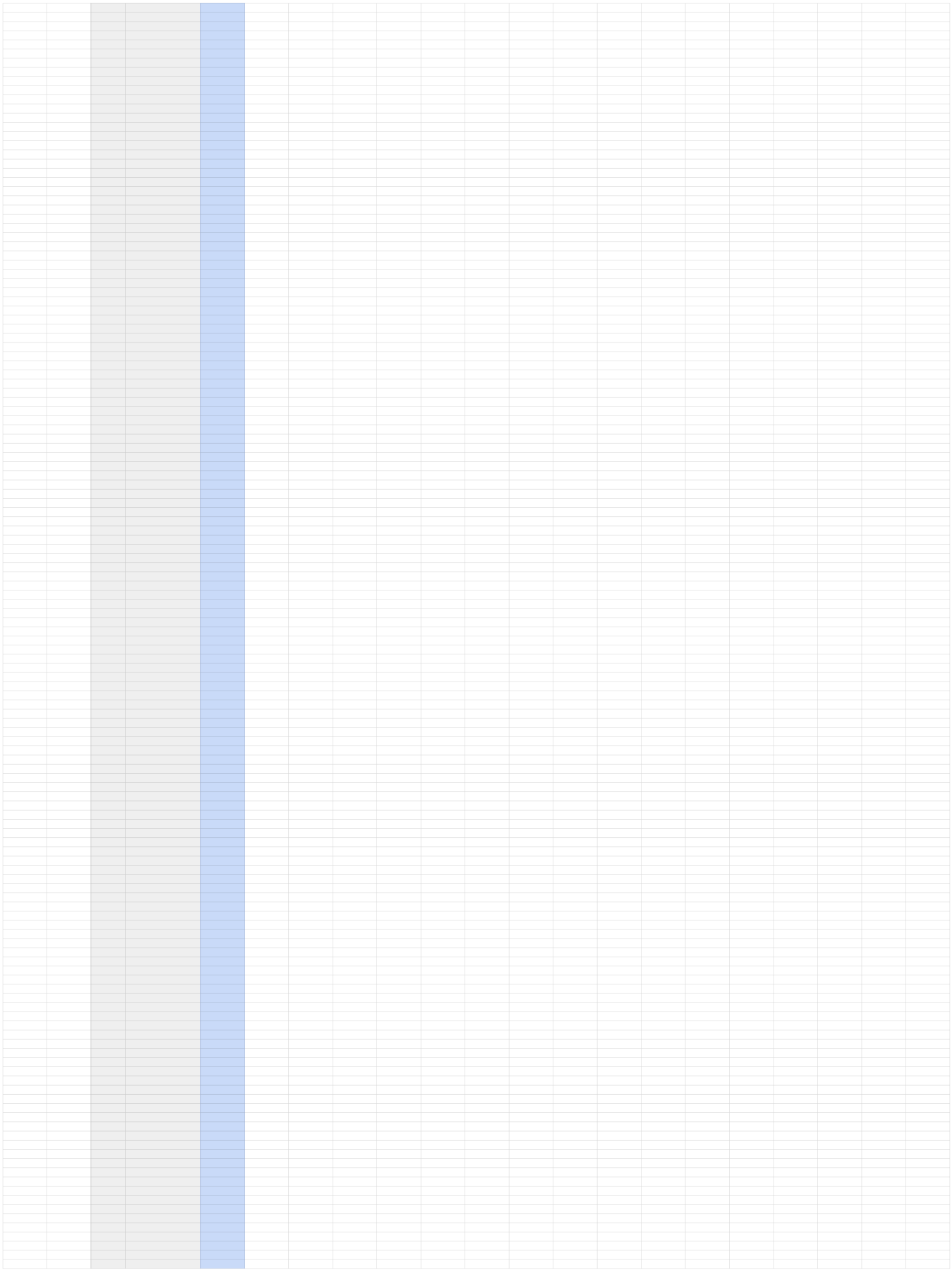
2026	2028	2030	2032	2034	2036	2038	2040	2042	2044	2046	2048	2050
931	1471	2011	2552	3049	3529	4008	4488	4968	4968	4968	4968	4968
8283	8676	9069	9462	10661	10991	11321	11651	11981	11981	11981	11981	11981
427	614	800	987	1326	1488	1650	1812	1974	1974	1974	1974	1974
342	491	640	790	1061	1190	1320	1450	1579	0	0	0	0
3790	4738	4738	4738	5686	5686	5686	6317	7897	7897	7897	7897	7897
9214	10147	11081	12014	13709	14519	15329	16140	16950	16950	16950	16950	16950
1708	2455	3202	3948	5304	5952	6601	7249	7897	7897	7897	7897	7897
7079	7079	7079	7079	7079	7079	7079	7079	7079	7079	7079	7079	7079

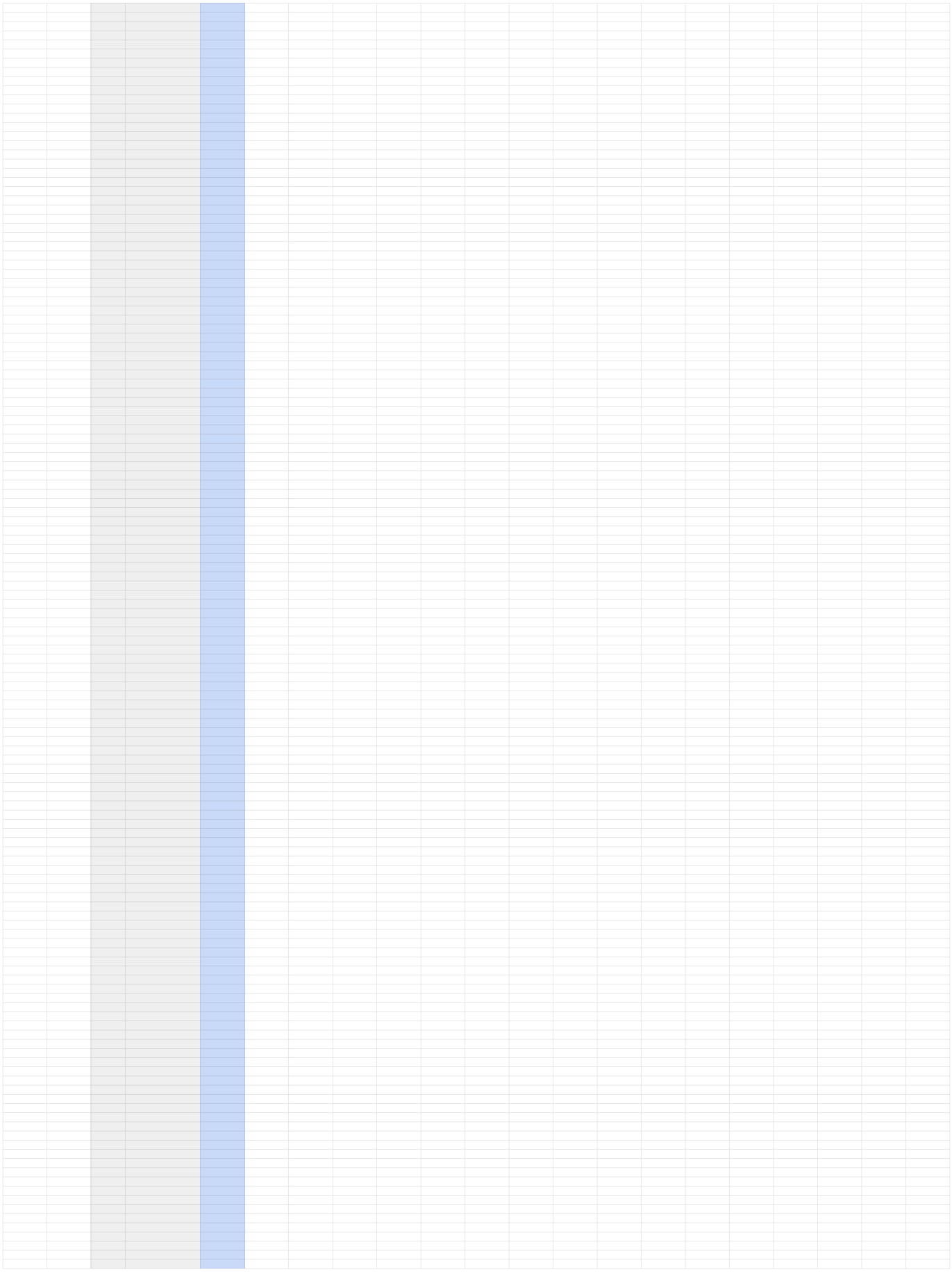


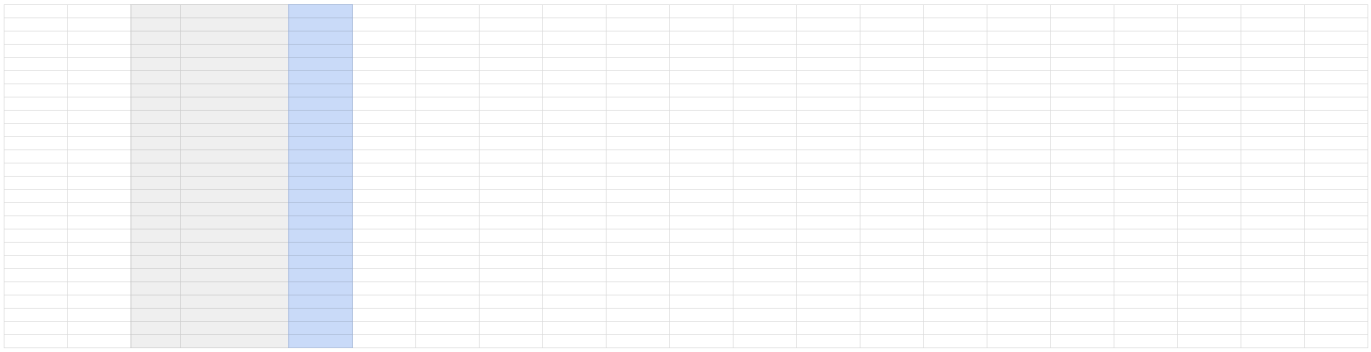












[1] https://edepot.wur.nl/7621

[2] in 20 years but INCLUDING avoided emissions + REDD+ so baseline is degradation?

[3] https://edepot.wur.nl/7621

[4] A critical review of the conventional SOC to SOM conversion factor (Geoderma,Volume 156, Issues 3–4, 15 May 2010, Pages 75-83)