

RAINFALL AT St. Helens The Eccleston HallPumping Station
LancashireObserver D. M. F. Gaskin Esq

Rain { By

Gauge {

Diameter.....1 1/2 in.

Height above Ground, 2 1/2 ft. 9 in.

Above Mean Sea Level 268 ft.

YEAR.....					1864	1865	1866	1867	1868	1869	MEANS.
January.....					2.48	2.03	2.91	1.28	2.38	1.78	
February.....					3.05	1.56	3.11	2.08	1.91	3.12	
March.....					3.55	1.42	1.98	1.04	3.41	1.47	
April.....					1.63	1.30	.59	3.61	1.94	2.31	
May.....					2.70	3.13	.77	1.60	1.74	4.04	
June.....					2.00	.69	4.15	.96	.36	1.28	
July.....					1.85	2.62	3.22	4.70	.47	1.18	
August.....					3.78	3.81	4.12	1.78	4.47	2.37	
September.....					3.90	.50	5.49	2.39	2.01	5.49	
October.....					1.84	3.20	2.45	3.10	4.40	2.07	
November.....					2.86	2.97	4.11	.81	2.15	3.61	
December.....					1.79	.80	2.57	4.29	7.08	3.13	
TOTALS					31.43	24.03	35.47	27.64	32.32	31.85	

Snow probably not properly measured

RAINFALL AT

St Helens The Eccleston Hall

2021
Gauging Station

Lat.

Lon.

County of

Lancashire

Rain Gauge, by

Observer

D. M. F. Gaskin Esq

Diameter.	12										
Height.	2.9										
Altitude.	268										
Year.	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.
January.	2.40	.50	7.00	2.54	2.78	4.00	1.70	4.61	3.54	4.00	
February. ....	.60	.84	7.00	.02	1.07	4.00	3.60	4.50	1.77	4.00	
March.	1.92	.84	4.69	1.46	2.02	.63	2.34	2.43	1.13	1.42	
April.	1.47	2.41	2.77	1.88	1.01	.34	3.25	3.13	2.20	1.14	
May.	1.07	1.45	1.27	1.85	1.44	2.46	.42	2.69	4.34	1.58	
June.	1.47	2.84	5.56	1.69	.96	3.80	2.61	1.07	3.32	3.10	
July. ....	.81	4.07	7.46	3.53	2.65	3.26	2.74	5.32	1.40	4.53	
August.	1.96	1.44	3.33	3.01	3.24	3.35	3.50	6.16	4.87	5.51	
September.	2.99	3.83	7.03	1.52	2.43	5.65	3.96	3.01	5.06	3.77	
October.	7.31	5.71	5.40	4.24	4.26	5.81	2.90	3.46	3.94	2.07	
November.	2.78	1.10	2.91	2.31	4.50	4.10	4.96	2.50	3.94	.64	
December.	2.79	.02	3.97	.88	1.51	.78	4.38	2.90	2.25	.61	
TOTALS.	27.57	25.05	51.39	24.93	27.87	24.18	36.36	41.78	37.76	28.37	

Snow not properly measured

RAINFALL AT *St. Helens The Eccleston Hotel*

Lat. _____

Lon. _____

County of *Lancashire*

Rain Gauge, by _____

Observer *D. M. & Gaskin Esq**Mersey - Lower 2.*

Diameter . . .	12										
Height	2.9										
Altitude	268.										
Year	1880	1881	1882	1883	1884	1885	1886	1887	1888	1889	MEANS.
January . . . .	.49	.08	2.72	3.15?	3.51	1.78	3.99	.98	.93	.65	
February . . . .	.80	4.17	1.73	4.35?	2.33	2.35	.80	.61	.61	1.53	
March	1.37	2.41	2.15	.63?	2.49	1.94	1.84	1.33	1.89	1.27	
April . . . . .	.66	1.23	4.06	1.09	1.07	1.38	1.12	1.06	1.09	1.92	
May	1.90	3.35	1.71	.68	.82	2.14	4.25	2.03	.66	2.47	
June	2.15	2.60	6.07	2.90	2.11	3.32	1.68	.91	2.54	.35	
July	5.82	3.47	5.27	3.32	3.20	1.91	3.03	1.17	6.87	2.98	
August	2.38	6.60	4.41	2.25	2.02	1.98	1.74	1.50	3.31	4.75	
September . . .	2.90	2.46	3.10	6.41	3.09	4.55	3.47	5.36	1.56	2.25	
October	3.13	3.14	3.00	5.81	1.49	5.99	4.05	2.37	1.85	2.84	
November	2.03	2.91	3.43	2.60	1.57	3.18	3.04	1.17	4.98	2.49	
December	6.16	4.30	2.12	1.65	3.12	2.18	4.00	2.61	1.89	2.39	
TOTALS	29.79	36.72	39.77	34.84	26.92	32.73	33.01	21.10	28.18	25.89	30.895

*Snow probably not properly measured**Values rejected from survey. (3.00)*

RAINFALL AT *St. Helens The Eccleston Hill Pumping Station*

Lat. _____

Lon. _____

County of *Lancashire*

Rain Gauge, by _____

Observer *D. M. F. Gastui Esq**J. J. F. G. G. Esq**Mersey Lower 2*

Diameter	12										
Height	2.9										
Altitude	268										
Year	1890	1891	1892	1893	1894	1895	1896	1897	1898	1899	MEANS.
January	3.17	1.01	1.80	.89	1.87	2.66	1.13	1.11	2.05	3.84	1.952
February	19	.08	1.54	3.07	4.02	(.24)	1.54	(2.60)	1.91	1.82	(1.701)
March	2.28	.76	.73	.77	2.21	(2.89)	2.94	2.09	.73	2.34	(1.714)
April.....	1.31	1.95	1.15	.39	1.59	1.74	1.48	2.27	1.40	3.27	1.655
May	1.58	2.13	3.36	1.30	2.48	.54	.51	1.33	3.88	3.28	2.039
June.....	2.27	3.39	4.08	1.74	2.23	.82	3.83	3.52	2.87	2.03	2.678
July	2.43	3.26	3.20	3.32	3.66	3.72	1.92	1.15	.52	2.37	2.555
August	3.67	6.50	4.53	2.79	4.77	3.31	3.18	4.88	4.54	1.49	3.766
September....	1.48	2.92	3.80	3.85	.72	1.17	6.28	4.90	1.28	4.17	3.057
October.....	2.09	3.49	6.25	2.18	3.79	5.13	3.18	1.88	4.55	3.03	3.557
November....	6.41	2.92	2.44	1.88	2.56	2.65	1.31	4.61	2.42	.56	2.776
December ....	.14	3.93	1.96	3.55	3.44	2.68	4.56	3.99	2.84	1.89	2.898
TOTALS	27.02	32.34	34.84	25.73	33.34	(27.55)	31.86	(34.33)	28.99	30.09	(30.609)

1895 Gauge out of repair from Feb'y 28th to March 24th
amount computed

1897 February computed.

Annual values rejected from survey (3" low).

RAINFALL AT St. Helens Eccleston Hill

Lat. 53° 26' 25"

Lon. 2° 46' 15"

County of Lancashire South

Howards Rain Gauge, by Parkin & Rapp Observer J. J. Rackland Esq. C.E.

Mersey 2

Diameter ..	12											
Height	2	9										
Altitude ..	268											
Year	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	MEANS.	
January ..	4.29	2.13	(3.00)	2.36	2.55	1.05	4.02	1.19	1.96	.69	2.324	
February ..	2.65	1.34	(1.10)	1.97	3.17	1.52	2.61	1.00	2.83	.96	1.915	
March	(1.00)	1.56	2.03	2.11	1.25	3.16	2.02	2.32	2.59	2.70	2.074	
April	1.53	2.14	1.96	1.86	1.36	2.46	1.48	.98	2.51	1.82	1.810	
May	1.36	.78	3.82	3.21	1.92	.59	2.60	3.35	2.85	2.23	2.271	
June	2.36	1.50	1.50	1.79	1.96	2.05	2.12	5.74	1.65	2.22	2.289	
July .....	.93	1.40	1.75	4.16	.76	1.91	1.22	4.01	4.14	4.75	2.503	
August	5.67	2.78	2.51	4.43	4.28	3.23	3.27	3.83	3.46	2.95	3.651	
September..	.83	0.91	1.18	4.68	2.56	1.71	2.45	.72	3.68	2.88	2.160	
October....	3.66	3.38	3.39	7.70	1.86	3.43	5.79	3.52	2.31	4.66	3.970	
November..	3.31	3.36	1.94	3.60	1.28	3.64	2.13	3.26	3.12	1.64	2.728	
December..	2.96	(3.75)	2.26	1.47	2.27	.50	3.57	2.93	1.36	6.39	2.746	
TOTALS ..	(30.55)	(25.03)	(26.44)	39.34	25.22	25.35	33.28	32.85	32.46	33.89	(30.44)	64.5

1900 March Gauge broken

1903 Eccleston Church 1630 yards N.N.W

Shatto Heath Station 1060 . S.E

Chimney 110 ft high 80 ft N.E

Pumping station 30 " 40 " E

Annual value rejected from Survey (3" low).

RAINFALL at

St. Helen's Eccleston Hall

County of South Lancashire

Observer

J. J. Lockland Esq C.E.

River Basin Lower Mersey 2

A.W. Bradley Esq

Howard Rain Gauge, by Pastorella & Deakin
M.O. B.L.

Diameter ...	12								8	12.5	
Height	3.0										
Altitude ...	268 T										
Year ...	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	MEANS. 1910-19 1910-19
January ...	2.44	.55	2.37	3.38	1.30	4.03	1.89	1.80	2.32	3.86	9.87
February ...	2.35	2.23	1.09	.92	1.65	2.55	3.27	(1.50)	2.50	1.69	8.96
March .....	.52	.83	5.14	2.71	3.09	1.40	1.20	(1.65)	1.42	5.61	9.88
April	2.67	2.14	.37	3.44	.94	1.79	2.28	1.37	1.19	1.49	6.33
May	2.45	.76	1.77	2.43	1.99	1.42	2.35	2.27	3.31	1.27	9.20
June	2.69	3.30	3.35	2.04	1.63	1.43	2.92	2.41	2.03	1.72	9.08
July	5.53	.35	3.44	1.64	4.72	3.86	1.77	1.72	4.33	1.81	9.63
August	4.06	2.40	6.13	2.09	2.31	5.31	3.38	7.03	3.01	4.29	17.71
September ..	.37	3.04	1.67	1.43	3.39	1.09	2.84	1.46	9.12	1.84	15.26
October ...	2.77	2.90	3.02	2.33	2.38	2.24	4.79	7.40	3.68	2.55	18.42
November ..	3.73	2.40	2.27	3.38	3.78	2.24	2.53	3.70	2.62	2.15	11.00
December ...	2.89	2.53	2.28	2.84	5.71	5.23	2.01	(1.66)	6.79	6.01	16.47
TOTALS ...	32.47	23.43	32.90	28.63	32.89	32.59	31.23	(33.97)	(42.32)	34.29	141.81

1912 Chimney 90 ft high 80

P. Station 30. 40

New Gauge fixed up 1/1/18

1916 Cox for air. No 1090 in basement.

Annual values repeated from Survey, 3rd class.

Date.	Lat. N.	Long.	Railway Station.	Distance.	Direction.	Church.	Distance.	Direction.
53.26.25	2.46.15		Shal. Heath	1060 yds	SE	Eccleston	1630	N 51 W

RAINFALL at *St. Helen's Eccleston Hill*County of *Lancashire*Observer *A. H. Bradley Esq.*River Basin *Lower Mersey 2**Borough & Water Eng. (St. Helen's)*
*A. A. Nathan Esq., C.E.**Main Office Rain Gauge, by N. & S.*

Diameter ...	12													
Height	3 0								1.10					
Altitude ...	263						265							
Year	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930. MEANS.	1920-30 MEANS.		
January ...	3.48	4.10	3.28	2.12	3.14	1.65	3.46	3.31	7.02	2.08	4.84	38.48		
February ...	2.38	2.20	3.46	3.52	96	4.77	2.86	1.58	3.31	1.01	2.4	24.29		
March	3.28	1.93	1.96	1.87	1.23	1.04	1.02	2.97	1.63	1.75	3.21	20.89		
April	3.94	1.09	2.29	2.87	1.87	1.57	76	2.25	1.01	63	2.46	20.74		
May	6.23	2.07	1.23	3.30	5.59	3.43	3.53	1.38	1.19	2.13	1.12	31.20		
June	3.80	35	2.20	70	2.63	05	1.50	4.06	5.70	1.67	1.81	24.47		
July	6.80	2.01	4.44	3.18	4.33	3.23	2.90	3.80	2.29	2.55	4.22	39.75		
August	2.00	4.16	2.95	3.54	6.21	4.27	3.40	5.33	5.57	3.96	6.61	48.00		
September...	3.06	1.10	3.90	3.24	4.06	4.13	3.38	5.13	1.53	1.95	3.07	34.55		
October	1.06	2.69	37	4.26	3.67	4.03	3.74	2.91	4.80	5.37	5.26	39.16		
November...	72	2.17	2.32	4.12	1.58	2.83	4.61	4.30	5.39	6.34	5.23	39.61		
December...	2.56	4.34	5.11	5.42	3.33	2.48	1.21	1.33	2.43	5.66	4.58	38.45		
TOTALS...	39.31	26.21	33.51	38.14	38.60	33.48	32.37	38.35	41.87	34.10	42.65	392.59		
	D	D	D	D	D	D	D	D	D	D	D	D		

*Rejected from Survey 3" low.*Position of Station on reduced Ordnance Survey
Map, 2 miles to 1 inch Series

No. of Map

Reference No.

Date.	Lat. N.	Long.	Railway Station.	Distance from gauge	Direction from gauge	Parish Church.	Distance from gauge	Direction from gauge
1920	53° 26' 25"	2° 46' 15"	Phatts Heath	5/8 mi	S E	Eccleston	7/8 mi	N W W

RAINFALL at St. Helen's (Eccleston Hill)

County of South LancashireObserver A. P. Statham Esq. C.E.River Basin Mersey-Lower-2Type of Gauge M.O.Annual Average 33.6 in. based on 5 years obs. ~~un~~-weighted. Period of average 1881-1915 Ref. S

815242/28.

Diameter	12.										
Height	1.0.										
Altitude	265.										
Year	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1931-40 Means Totals
January	4.09	3.92	1.32	2.07	1.96	4.28	2.27	2.34	6.31	2.10	31.66
February	3.01	1.08	3.36	25	2.91	1.99	4.13	1.00	2.98	2.60	22.31
March	2.28	2.24	2.09	1.82	1.16	1.79	1.47	1.07	1.81	2.33	16.06
April	2.97	2.74	1.20	2.31	2.54	1.49	3.26	3.3	2.03	2.28	21.17
May	2.50	4.37	1.37	2.15	1.88	1.01	2.16	3.74	1.17	1.65	21.80
June	5.07	36	2.37	1.55	2.98	2.57	1.19	3.29	2.55	1.86	22.79
July	2.32	3.89	2.04	1.36	1.38	3.43	1.63	3.43	5.81	2.67	27.96
August	7.26	1.15	1.45	4.31	2.15	1.89	2.97	5.33	1.55	1.20	29.26
September	2.91	3.64	1.95	2.36	6.06	3.93	1.52	1.93	7.4	3.08	27.16
October	2.13	7.05	3.98	5.36	5.13	2.83	2.77	7.95	2.01	3.86	43.07
November	5.85	3.17	1.47	2.02	4.30	3.81	1.79	4.80	5.08	6.09	38.38
December	1.61	1.49	60	4.78	3.81	3.70	1.84	4.95	2.89	2.29	27.96
TOTALS	39.82	34.14	22.20	30.34	36.26	32.72	27.00	41.16	34.93	31.01	329.58
	D.	D.	D.	D.	D.	D.	D.	D.	D.	D.	D.

N.B. This g was lowered to 1' from 2'9" at the end of 1927. Prior to this the record gave an average some 3" less.

Position of Station on reduced Ordnance Survey Map, 1 mile to 1 inch Series

No. of Map.....

Reference No.....

Date.	Lat. N.	Long.	Railway Station.	Distance from gauge	Direction from gauge	Parish Church.	Distance from gauge	Direction from gauge
1931			Hatto Heath	5/8 m	SE	Eccleston	7/8 m	NW

Station No. M. 2821RAINFALL at S^t. Helens (Eccleston Hill)

41

County of South Lancashire Observer A. P. Statham Esq. R.S.River Basin Mersey Lower 2Type of Gauge M.O.Annual Average 33.5 in. based on 5 years obs. unweighted. Period of average 1881-1915 Ref. SFile No. 815242/28

Diameter	12"			5.66	1.61						
Height	1'0"				1						
Altitude	265'				41			250'			
Year	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	Means Total
January	2.33	3.02	3.85	4.44	1.80	3.63	2.22	6.75	2.82	1.48	32.41
February	3.04	1.43	1.90	1.15	2.67	4.60	.70	2.02	1.31	4.56	23.38
March	2.66	3.36	.77	.65	.97	.89	4.56	1.01	2.61	1.38	18.86
April	1.55	1.32	1.54	2.32	1.98	.97	2.35	1.39	2.41	3.11	18.94
May	1.83	3.49	2.55	2.29	3.48	1.75	2.50	1.39	3.40	1.07	23.75
June	.64	.61	2.41	1.87	3.36	3.52	1.88	4.01	.78	2.08	21.16
July	2.34	3.22	3.18	2.83	2.38	3.54	2.73	2.61	3.03	2.78	28.64
August	5.04	4.15	4.16	2.83	2.56	4.72	.23	4.19	2.31	6.06	36.28
September	1.13	2.21	3.51	4.90	2.09	3.75	2.76	1.86	1.51	5.15	28.92
October	3.32	4.26	3.89	3.90	4.71	1.09	.70	2.53	3.89	2.55	30.84
November	2.34	.90	2.18	6.02	.37	4.81	3.64	2.02	4.85	4.69	31.82
December	1.04	3.44	1.61	2.71	2.98	2.80	3.27	3.08	5.27	2.95	29.18
TOTALS	27.34 D	31.48 D	31.55 D	35.91 D	29.35 D	36.07 D	27.54 D	32.86 D	34.19 D	37.86 D	324.18 D

The gauge at Eccleston Hill is overexposed on top of an elevated reservoir with the
29.5-45° from Liverpool W.S.

Position of Station on reduced Ordnance Survey Map,
1 mile to 1 inch Series

No. of Map.....

Reference No.....

Date.	Lat. N.	Long.	Railway Station.	Distance from gauge	Direction from gauge	Parish Church.	Distance from gauge.	Direction from gauge.

BRITISH RAINFALL ORGANIZATION

Station No. 2821 m

RAINFALL at St Helena (Beckleton Hill)

51

County of Lancashire

Observer M. Ward Esq. M. Inst. C.E.

River Basin Hursey - Lower - 2

Type of Gauge M.O. (1951)

Annual Average 33.6 in. based on 5 years obs. un-weighted. Period of average 1881-1915 Ref. S

" " 34.36 " " 41 " " within 1916-51 " " 1916-50 File No. 215242/28

Diameter ...	12"	5"		566	161		12"				
Height ...	1' 0"	1' 0"			1						
Altitude ...	250'	250'			51						
Year ...	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	Means
January ...	2.91	3.81	1.62	3.51	2.46	4.53	1.72	2.78	3.00	4.54	30.88
February ...	1.82	.85	1.18	2.82	2.27	.50	1.85	5.99	.43	1.78	19.49
March ...	4.41	2.27	1.22	2.29	1.72	1.21	2.77	1.70	1.18	1.63	20.40
April ...	1.83	2.23	2.64	.94	2.04	2.96	.46	.94	2.75	1.56	18.35
May ...	2.51	2.49	2.19	2.42	2.90	1.12	1.48	3.68	1.79	2.35	22.93
June ...	.92	2.31	1.53	3.08	3.76	2.04	1.72	4.47	2.87	2.28	24.98
July ...	2.42	1.64	4.46	4.44	.73	5.13	4.06	4.71	3.12	4.93	35.64
August ...	5.47	2.59	3.68	4.72	1.55	9.03	5.94	3.26	1.08	4.78	42.10
September ...	3.08	3.30	3.76	3.52	2.86	2.79	5.82	3.93	.28	3.12	32.46
October ...	1.16	4.53	2.02	6.16	2.55	2.61	3.68	3.58	3.03	3.51	32.83
November ...	8.77	2.47	3.35	5.61	1.81	1.75	1.24	1.99	4.69	5.34	37.02
December ...	5.73	3.14	1.12	3.99	4.90	2.63	3.30	3.87	5.88	3.45	38.01
TOTALS ...	41.03	31.63	28.77	23.50	29.55	36.30	34.04	40.90	30.10	39.27	355.09
	D	D	D	D	D	D	D	D	D	D	

Position of Station on Ordnance One-Inch map :

No. of Map.....

National Grid Reference SJ 4889.41

Date.	Lat. N.	Long.	Railway Station.	Distance from gauge	Direction from gauge	Parish Church.	Distance from gauge.	Direction from gauge.

Summary of Earlier Records from 10-year Sheets :

Record D, or d	1910-19	1920-30	1931-40	1941-50	1951-60
	✓	✓	✓	✓	
	D 18, 19	✓	✓	✓	