

RAINFALL AT *Dalton & Dale Pumping Station*

Lat. _____

Lon. _____

County of *Durham*

Rain Gauge, by _____

Observer *Alfred. D. E. Blackburn Esq*

Fees. 1.

Diameter . . .									8		
Height									1-0		
Altitude									345 ft		
Year	1890	1891	1892	1893	1894	1895	1896	1897	1898	1899	MEANS.
January									1.10	2.94	
February . . . .									.86	1.04	
March									1.33	1.77	
April									2.37	2.23	
May									2.27	3.99	
June									2.26	1.94	
July . . . . .									.68	2.16	
August									1.88	.98	
September . . .									.63	2.70	
October									3.97	3.14	
November									3.06	1.61	
December									1.32	3.01	
TOTALS									21.73	27.51	

St Andrews Church, Dalton & Dale 5/8 mile N.

RAINFALL AT Dalton Le Dale Pumping Station

Lat.

Lon.

County of

Durham

Rain Gauge, by

Observer

A. B. Blackburn Esq.

2es +c - 1.

Diameter ..	8										
Height	1 0										
Altitude ..	345										
Year	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	MEANS.
January ..	2.95	1.51	.65	2.34	2.07	.20	2.51	.44	.95	.67	1.429
February ..	5.14	1.96	1.22	.99	2.34	.58	1.15	1.17	1.09	1.44	1.708
March	1.95	1.94	.69	1.49	1.21	1.27	.92	.72	2.79	4.31	1.729
April .....	.76	1.27	1.64	1.57	.94	3.00	.99	2.01	2.41	2.43	1.702
May	1.34	2.29	2.33	3.02	3.06	.77	5.62	4.58	1.31	1.65	2.597
June	3.33	1.58	2.48	3.03	1.37	.68	.85	2.94	.42	2.35	1.903
July	2.22	1.87	2.46	4.29	1.81	1.67	.79	1.36	2.50	2.87	2.184
August	5.35	2.21	1.65	2.54	3.42	2.67	1.94	1.76	1.44	3.35	2.633
September ..	.57	1.19	.94	2.51	.88	2.09	.37	.26	1.77	2.21	1.279
October	7.17	1.73	2.22	8.38	.56	2.66	4.62	4.32	.78	2.09	3.473
November ..	2.78	4.46	1.25	2.33	2.22	5.26	2.90	1.59	1.61	1.07	2.547
December ..	2.38	2.86	2.72	1.62	2.09	.42	1.73	2.89	.91	3.70	2.132
TOTALS ..	35.94	24.87	20.25	34.11	21.97	21.27	24.39	24.04	18.18	28.14	25.316

1900 St Andrews Church 5/8 mile N

Trees 15 ft high 63 ft N

Dalton Le Dale

1905 Minton Station 2 miles W

H. B.

RAINFALL at Seaham Dalton Pumping StationCounty of DurhamObserver A. B. E. Blackburn EsqRiver Basin Tees + C 1

Rain Gauge, by _____

Diameter ...	8										
Height	1.0										
Altitude ...	345 K										
Year ...	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	1910-1919 MEANS. Total 15
January ...	2.14	1.58	2.57	3.41	1.59	2.56	.83	3.35	2.20	2.15	9.23
February ...	2.21	1.25	1.99	.68	1.07	2.93	2.28	.85	1.32	1.98	6.43
March .....	.59	2.03	1.82	2.41	1.85	1.63	3.38	2.37	1.28	2.99	10.02
April	2.02	1.31	.11	3.09	.56	.65	1.46	1.98	1.49	1.61	6.54
May	2.46	.55	2.97	2.52	1.60	1.73	2.12	2.99	1.87	.96	7.94
June	2.07	4.34	5.46	1.08	3.79	.52	3.20	.79	.34	1.16	5.49
July	2.43	.96	4.18	.71	3.40	3.05	2.88	1.02	3.88	1.10	8.88
August	2.84	2.32	4.59	1.40	2.22	2.23	2.48	6.00	1.37	2.28	12.13
September ..	.61	2.06	1.92	2.55	1.78	2.26	2.15	1.49	5.08	1.30	10.02
October ...	2.70	2.58	3.33	2.46	2.01	1.60	2.98	2.56	3.08	5.95	14.57
November ...	2.71	4.14	2.09	1.40	4.10	1.91	2.85	1.50	.99	4.16	9.50
December ...	2.09	3.19	1.34	1.53	3.18	7.00	3.11	2.84	3.08	3.84	12.07
TOTALS ...	24.87	26.31	32.37	24.24	27.15	28.07	29.72	27.74	25.98	24.38	112.82

1912 Tees 15 ft high 63 ft N

Date.	Lat. N.	Long.	Railway Station.	Distance.	Direction.	Church.	Distance.	Direction.
1911			Murton	2 mi	W	St Andrews	5/8 mi	N.
1918.	54.49.00	1.21.37.00						
	1.21.37.							

RAINFALL at Seaham Dalton Pumping StationCounty of DurhamObserver A. B. C. Blackburn Esq. CERiver Basin Tees & C. 1Sunderland & S. D. Rother Water Co.Snowdon Rain Gauge, by
measure flat bottom - correct } 18.26.
gauge sand forest

Diameter ...	8											
Height	1	0										
Altitude ...	345											
Year	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930. MEANS.	1920-30 Totals
January ...	2.85	3.84	1.95	.92	1.65	1.89	2.03	1.29	2.74	3.19	3.61	25.96
February ...	1.10	.21	2.09	3.50	1.34	2.86	1.89	0.78	1.31	.77	1.72	17.56
March	3.49	.74	1.36	1.66	.87	1.94	.76	2.05	2.26	.16	2.84	18.13
April	3.70	1.19	1.86	2.14	1.95	3.15	.99	1.63	1.12	1.24	2.13	21.10
May	3.80	1.72	.98	3.09	6.13	3.23	1.74	1.79	1.36	1.09	1.41	26.34
June .....	.71	1.04	1.82	1.17	2.22	.18	3.60	3.93	5.05	1.71	1.61	23.04
July	6.23	1.77	4.51	1.73	5.81	2.64	3.02	4.26	1.60	2.74	6.65	40.86
August	1.49	4.76	2.78	3.91	2.79	3.48	2.74	5.53	5.98	2.61	4.25	38.32
September...	1.42	.68	4.98	1.58	2.38	3.27	2.08	3.68	1.03	1.22	3.56	25.88
October	2.41	2.00	1.70	2.80	3.82	2.00	2.86	2.10	3.18	2.25	1.84	26.96
November...	.97	2.81	.78	4.76	1.00	2.42	4.31	3.40	2.80	2.88	3.75	29.88
December...	3.74	1.61	4.42	2.37	2.22	3.57	.75	2.89	1.60	3.03	2.35	28.55
TOTALS...	31.91	22.37	29.23	29.63	32.18	30.62	26.77	33.33	28.03	22.89	35.62	322.57

1920 Gauge 15 ft high 63 ft N

Inspected by S. 8.18.26. S. on glass with reservoir (cannel) to S.W.
+ small plantation to N. Good shelter by slightly rising land to E+S.
Excellent exposure.

Position of Station on reduced Ordnance Survey }
Map, 2 miles to 1 inch Series

No. of Map

Reference No.

Date.	Lat. N.	Long. W.	Railway Station.	Distance from gauge	Direction	Parish Church.	Distance from gauge	Direction
1920	54° 49' 00"	1° 21' 37"	Murton	2 mi	W	St. Andrews	5/8 mi	N

RAINFALL at Seaham (Dalton Pumping Stn.)

County of DurhamObserver A.B.E. Blackburn, Esq. C.E.River Basin Tees & C. - 1.Type of Gauge SnowdonAnnual Average 27.2 in. based on 29 years obs. un-weighted. Period of average 1881-1915 Ref. S

686271/26

Diameter	4.											
Height	1.0.											
Altitude	345.											
Year	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1931-40 Means Totals	
January	2.54	1.10	2.28	1.54	2.37	4.02	2.23	1.86	4.11	1.42	2347	
February	1.02	1.04	2.27	.47	2.46	2.89	2.72	1.09	.79	1.82	1657	
March	.62	3.05	1.42	2.43	.75	1.96	3.57	.22	1.84	1.88	1774	
April	5.11	1.40	.91	3.85	3.15	1.66	2.33	.18	.85	1.34	1878	
May	2.42	5.04	1.67	1.23	.96	2.12	3.23	3.24	1.30	1.40	2261	
June	3.68	1.54	1.71	2.59	3.01	3.01	1.61	2.81	2.37	.86	2319	
July	3.81	2.55	2.07	1.60	.49	3.41	2.39	2.69	2.00	6.30	2731	
August	3.52	2.42	.86	3.50	2.28	2.39	1.18	2.10	3.15	1.45	2285	
September	4.05	2.40	1.89	1.80	6.03	2.72	1.13	2.09	1.51	1.70	2532	
October	1.24	3.88	3.99	2.94	3.81	1.45	2.09	3.22	5.27	3.40	3130	
November	2.26	1.04	3.90	2.47	3.90	2.75	2.02	2.32	2.60	3.73	2699	
December	1.32	.98	1.96	3.93	2.22	1.81	4.73	2.92	1.26	2.53	2366	
TOTALS	29.59 D.	26.44 D	24.93 D	28.35 D.	31.43 D.	30.19 D	29.23 D	24.75 D	27.05 D	27.83 D	27979 D	

1931. Tees 15 high 63 N.

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.			Ambleton	2m	W	St. Andrew	5/8 m	N.

Station No. T.F. 3532

RAINFALL at Seaborn (Dalton Pumping Sta.)

41

County of Durham

Observer A. B. & Blackburn Eng. C. E.

River Basin Tees & C. - 1

A. G. M. & Co., Eng. C. E.

Type of Gauge Snowden

Annual Average 27.0 in. based on 29 years obs. unweighted. Period of average 1881-1915 Ref S

File No. 68627/126

Diameter	8"		0.25	8.61								
Height	1' 0"			1								
Altitude	345			41								
Year	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1941-50 Means	1941-50 Totals
January	3.13	2.37	2.86	7.9	3.40	1.10	1.37	1.18	.53	1.57	24.90	
February	5.96	1.38	.45	1.62	1.36	.29	1.25	.98	.35	3.28	16.92	
March	2.30	.71	.89	.74	.46	1.07	3.50	.65	1.06	.68	12.06	
April	.97	.97	.84	2.05	1.92	1.59	2.35	1.58	1.45	2.06	15.78	
May	1.68	1.44	2.52	2.08	2.69	2.05	2.60	1.49	.63	2.19	19.37	
June	.55	1.36	1.46	2.45	1.65	3.47	2.36	3.90	.98	1.12	19.30	
July	.53	3.94	2.22	2.74	1.99	4.15	2.80	1.21	1.92	3.72	25.22	
August	2.96	1.92	4.60	1.78	3.75	3.70	.41	5.07	1.84	5.60	31.63	
September	.67	3.10	3.37	4.87	1.50	3.70	1.85	2.12	.75	3.48	25.41	
October	4.29	2.70	1.61	2.43	3.31	1.16	.62	1.75	2.58	1.09	21.54	
November	3.21	.78	3.09	4.39	.94	4.40	2.04	1.29	2.92	5.68	28.94	
December	.26	2.13	1.27	1.54	1.24	2.85	1.97	2.26	2.79	3.71	20.02	
TOTALS	26.51	22.80	25.18	27.48	24.21	29.53	23.12	30.28	17.80	34.18	261.09	

1941: Tread 15' high, 63' N.
 1941: Feb. covered for snow.

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
1941			Marton	2 miles	W	St. Andrew	5 miles	N.

BRITISH RAINFALL ORGANIZATION

Station No. 3532

RAINFALL at Seaham (Dalton Pumping Station)

51

County of Durham

Observer

R. E. McEllan Esq. C.E.,
Sunderland & Shields W. Co.

River Basin Tees & G. - 1

Type of Gauge Snorodon

Annual Average 27.8 in. based on 29 years obs. un-weighted. Period of average 1881-1915 Ref. S.

27.89 - 35 - 19.6-1950

1916-1950
File No. 68627/26 P

Diameter ...	8"	0.25	8.61	5"							
Height ...	1' 0"		1								
Altitude ...	345'		51								
Year ...	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	Means Totals
January ...	1.49	2.18	.93	2.68	1.47	3.05	1.43	1.66	2.97	4.82	22.68
February ...	2.40	.58	1.42	1.79	2.16	1.35	1.96	3.71	.60	2.35	18.31
March ...	3.52	1.42	.05	1.28	1.53	.84	.97	3.56	.68	1.72	15.57
April ...	1.18	1.52	2.39	.42	.94	.95	.42	1.48	1.52	.79	11.61
May ...	4.52	1.71	2.21	2.24	1.83	.54	1.33	2.80	.47	1.86	19.51
June ...	1.58	.92	2.36	2.07	2.67	3.03	2.40	2.57	2.64	.31	20.55
July ...	1.43	1.03	3.40	1.93	1.19	2.49	2.88	2.54	1.91	3.70	22.50
August ...	4.71	2.02	4.07	4.92	.76	6.73	3.28	2.39	.42	2.01	31.31
September ...	.94	4.36	1.51	2.07	1.35	1.98	3.47	1.32	.59	1.85	19.44
October ...	1.19	2.61	1.30	3.97	1.23	1.42	1.72	1.26	.95	7.12	22.77
November ...	5.23	3.68	1.18	3.56	1.92	.92	1.20	.65	3.10	2.72	24.16
December ...	3.08	2.34	.85	1.70	2.73	2.23	1.27	3.20	3.20	2.04	22.64
TOTALS ...	31.27	24.37	21.67	28.63	19.78	25.53	22.33	27.14	19.05	31.29	251.05
	D	D	D	D	D	D	D	D	D	D	

1951 Tees 15' 6" N:

7173

Position of Station on Ordnance One-Inch map :

No. of Map.....

National Grid Reference (N. 12.21024)

Date.	Lat. N.	Long.	Railway Station.	Distance Direction from gauge		Parish Church.	Distance Direction from gauge.	
1951			Musketon	2 mi	W	St. Andrew's	5/2 mi	N.
1955			"	1.825 mi	W.	(Dalton-H-Pole)	7.45 mi	WNW.

Summary of Earlier Records from 10-year Sheets :

1916-1950, P-accepted

Record D, or d	C 1398	1910-19	1920-30	1931-40	1941-50	1951-60
		✓	✓	✓	✓	
		✓ but 10-16	✓	✓	✓	