

RAINFALL at Derwent Dale Howden-rough N°64County of W.R. YorkshireObserver S.B. Wines Esq C.E.River Basin West Derwent 5

Rain Gauge, by _____

| | | | | | | | | | | | |
|--------------|------|------|------|------|------|-------|-------|-------|-------|-------|--------|
| Diameter ... | | | | | | 5 | | | | | |
| Height | | | | | | 10 | | | | | |
| Altitude ... | | | | | | 1020 | | | | | |
| Year ... | 1910 | 1911 | 1912 | 1913 | 1914 | 1915 | 1916 | 1917 | 1918 | 1919 | MEANS. |
| January ... | | | | | | 6.32 | 3.24 | 3.35 | 3.75 | 5.11 | |
| February ... | | | | | | 6.41 | 7.32 | 1.22 | 4.78 | 3.45 | |
| March | | | | | | 1.41 | 3.04 | 3.04 | 2.10 | 6.35 | |
| April | | | | | | 1.54 | 3.07 | 2.20 | 1.31 | 2.31 | |
| May | | | | | | 1.36 | 2.03 | 1.92 | 3.95 | 1.65 | |
| June | | | | | | 1.28 | 3.84 | 2.10 | 2.29 | 1.36 | |
| July | | | | | | 6.15 | 2.56 | 1.88 | 3.45 | 3.42 | |
| August | | | | | | 2.93 | 1.94 | 8.26 | 2.03 | 3.46 | |
| September .. | | | | | | .57 | 1.79 | 1.81 | 10.63 | 2.23 | |
| October ... | | | | | | 3.27 | 6.93 | 6.57 | 3.40 | 4.29 | |
| November .. | | | | | | 3.78 | 5.29 | 5.29 | 2.21 | 3.75 | |
| December... | | | | | | 9.95 | 3.83 | 2.90 | 7.85 | 7.02 | |
| TOTALS ... | | | | | | 44.97 | 44.88 | 40.54 | 47.75 | 44.96 | |

| Date. | Lat. N. | Long. | Railway Station. | Distance. | Direction. | Church. | Distance. | Direction. |
|-------|---------|-------|------------------|-----------|------------|---------|-----------|------------|
| | | | | | | | | |

RAINFALL at Derwent Dale Howden Clough No. 64County of N. YorksObserver J. B. Winkler Esq. C.E.River Basin Yent-Derwent-5Derwent Valley Water Bd.

4.97 }
5.03 } Cu Snodon Rain Gauge, by Cassels
5.00 } 8250
5.01 } Monthly, good condition

| Diameter ... | 5" | | | | | | | | | | |
|---------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------------|
| Height | 10 | | | | | | | | | | |
| Altitude ... | 1030 | | | | | | | | | | |
| Year | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 | 1926 | 1927 | 1928 | 1929 | 1930 March |
| January ... | 5.53 | 6.45 | 6.05 | 5.07 | 3.34 | 4.18 | 5.66 | 3.97 | 12.00 | 2.60 | 7.09 |
| February ... | 4.11 | .31 | 5.42 | 7.09 | 1.67 | 6.15 | 3.40 | 2.23 | 6.94 | .71 | 1.52 |
| March | 3.05 | 3.09 | 2.94 | 2.36 | 1.18 | 2.32 | 2.79 | 5.57 | 5.78 | .78 | 3.56 |
| April | 6.59 | 2.21 | 4.69 | 3.03 | 2.62 | 3.80 | 2.46 | 5.11 | 1.84 | 1.31 | 4.11 |
| May | 6.57 | 2.13 | 1.00 | 4.53 | 5.78 | 4.68 | 3.80 | 1.48 | 1.67 | 3.33 | 2.48 |
| June | 4.09 | .21 | 2.14 | 0.69 | 1.62 | .05 | 3.42 | 5.59 | 4.51 | 1.42 | 4.57 |
| July | 6.55 | 1.16 | 4.75 | 2.60 | 4.59 | 2.07 | 2.97 | 3.07 | 1.50 | 4.04 | 7.50 |
| August | 1.95 | 6.92 | 6.84 | 4.48 | 3.85 | 4.96 | 4.10 | 6.11 | 5.77 | 3.90 | 5.08 |
| September... | 1.69 | .91 | 3.46 | 4.72 | 4.66 | 3.95 | 2.63 | 6.53 | 0.51 | 1.55 | 6.24 |
| October | 3.80 | 2.54 | 1.68 | 3.71 | 6.60 | 5.44 | 6.23 | 5.20 | 6.93 | 6.36 | 6.93 |
| November... | 1.63 | 2.60 | 2.59 | 6.94 | 3.29 | 4.44 | 5.98 | 6.95 | 8.83 | 9.74 | 6.22 |
| December... | 4.86 | 6.78 | 4.11 | 4.52 | 4.31 | 5.91 | 2.54 | 2.23 | 3.80 | 13.04 | 4.47 |
| TOTALS... | 50.42 | 35.31 | 46.17 | 50.74 | 43.51 | 47.95 | 45.98 | 54.04 | 58.08 | 48.78 | 59.77 |

Inspector G.B. 18.7.22 Bat bottom of valley running E & W. Good position
with sufficient shelter by hills & trees.

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 | Parish Church. | Distance from gauge | Direction |
|-------|---------|-------|------------------|---------------------|-----------|----------------|---------------------|-----------|
| | | | | | | | | |
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RAINFALL at Derwent Dale (Howden Cl'gh) ⁶⁴⁴County of West RidingObserver S. B. Winsor, Esq., etc.River Basin Trent-Derwent - S.Derwent Valley Water Board (1935)

Type of Gauge.....

Annual Average 44.4 in. based on 15 years obs. un-weighted. Period of average 1881-1915 Ref. 5

660619/26

| Diameter | 5. | | | | | | | | | | | |
|-----------|-------|-------|------|--------|-------|-------|-------|---------|---------|---------|------------------|--|
| Height | 1.0. | | | | | | | | | | | |
| Altitude | 1030. | | | | | | 1010 | | | | | |
| Year | 1931 | 1932 | 1933 | 1934 | 1935 | 1936 | 1937 | 1938 | 1939 | 1940 | Means 1931-40 | |
| January | 7.83 | 5.18 | 3.71 | 4.71 | 3.09 | 4.85 | 7.05 | 6.05 | 7.71 | (3.95) | 54.18 | |
| February | 6.95 | .57 | 5.08 | .48 | 6.80 | 4.86 | 7.96 | 2.82 | 3.90 | 3.25 | 42.67 | |
| March | .19 | 3.60 | 3.29 | 5.15 | 1.94 | 4.20 | 4.10 | 1.54 | 4.52 | (3.80) | 32.33 | |
| April | 5.90 | 6.78 | 1.77 | 3.72 | 3.92 | 2.78 | 3.26 | .35 | 3.23 | 4.29 | 36.00 | |
| May | 2.39 | 5.21 | 1.93 | 2.25 | .82 | 2.51 | 3.98 | 3.78 | (3.00) | (1.35) | 27.22 | |
| June | 5.92 | .95 | 2.67 | 1.41 | 3.56 | 4.29 | 1.41 | 4.00 | 3.42 | 1.01 | 28.64 | |
| July | 4.97 | 4.88 | 3.39 | 3.43 | 1.75 | 4.53 | 3.50 | 4.88 | (3.40) | 3.94 | 43.67 | |
| August | 8.02 | 1.70 | 0.71 | 2.95 | 1.83 | 2.42 | 1.74 | 2.84 | 3.53 | 1.70 | 27.44 | |
| September | 5.70 | 4.14 | 1.62 | 3.50 | 6.27 | 7.16 | 1.83 | 3.71 | 2.98 | (4.45) | 41.36 | |
| October | 1.88 | 8.20 | 6.31 | 5.50 | 10.00 | 4.98 | 4.20 | (10.00) | 5.74 | 5.37 | 62.18 | |
| November | 7.08 | 4.66 | 3.39 | 4.31 | 8.55 | 6.81 | 2.85 | 6.90 | (9.10) | (11.60) | 65.25 | |
| December | 2.54 | 2.44 | 0.74 | 6.19 | 5.28 | 4.92 | 5.15 | 5.72 | (4.30) | 6.01 | 43.29 | |
| TOTALS | 59.42 | 48.31 | 34.6 | 143.60 | 53.81 | 54.31 | 47.03 | 52.59 | (59.83) | (50.72) | 564.23 | |

N.B. Suspected X/50. "move g to site selected on other side of pond & set up in "leaf case"
 1934. g. moved according to instructions and renumbered 644

1938. Set up by Obs., file maps.

Jan. Mar. May Sept. & Nov. cold.

* Inf. with strip X/11.33

Position of Station on reduced Ordnance Survey Map, } No. of Map..... Reference No.....
 1 mile to 1 inch Series

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

Station No. 3108/1RAINFALL at Desvent Dale Haddon Clough
check gauge 64 B

41

County of Yorks. W.R. Observer Desvent Valley Water Bd.River Basin Thent Desvent - 5

Type of Gauge.....

Annual Average.....in. based on.....years obs. un-weighted. Period of average.....Ref.....

File No. 370241/34

| Diameter | | | | 106 | 232 | 5" | | | | | |
|-----------------|------|------|------|-------|---------|-------|---------|-------|-------|--------|-------|
| Height | | | | | 1 | 10" | | | | | |
| Altitude | | | | | 41 | 1090' | | | | | |
| Year | 1941 | 1942 | 1943 | 1944 | 1945 | 1946 | 1947 | 1948 | 1949 | 1950 | Means |
| January | | | | 8.00 | (6.00) | 5.81 | (4.10) | 10.48 | 2.47 | 4.24 | |
| February | | | | 2.60 | (6.20) | 6.25 | (4.30) | 3.87 | 2.09 | 7.21 | |
| March | | | | 1.40 | 1.40 | 2.75 | (8.70) | 1.73 | 1.77 | 2.27 | |
| April | | | | 3.50 | 2.60 | 2.00 | 3.95 | 2.31 | 4.77 | 5.07 | |
| May | | # | 3.33 | 4.25 | 3.50 | 2.98 | 3.95 | 2.43 | 2.99 | 2.80 | |
| June | | | 2.56 | 2.59 | 5.00 | 4.50 | 2.87 | 4.57 | .54 | 1.25 | |
| July | | | 1.96 | 3.91 | 1.25 | 3.71 | 2.11 | 1.57 | 3.79 | 2.80 | |
| August | | | 4.61 | 4.20 | 3.00 | 4.51 | .48 | 5.10 | 2.33 | 3.81 | |
| September | | | 4.87 | 5.05 | 2.35 | 5.94 | 1.87 | 2.09 | 1.85 | 5.79 | |
| October | | | 2.50 | 5.00 | 6.25 | 2.69 | 1.38 | 2.66 | 4.75 | 1.41 | |
| November | | | 4.83 | 8.10 | 75 | 10.61 | 4.97 | 2.11 | 8.45 | 7.88 | |
| December | | | 2.91 | 3.70 | 3.75 | 4.85 | 5.74 | 3.81 | 8.00 | (3.81) | |
| TOTALS | | | imp. | 52.30 | (42.05) | 56.60 | (44.42) | 42.73 | 43.80 | 47.49 | |

1944 n.p. check.

1945 n.p. check. Jan & Feb. est'd.

1946 n.p. check.

1947 n.p. check. Jan, Feb. man. missed for snow

1949 (spring) inspected - gauge & first with snow, grass kept carefully cut.

1950 n.p. check and low Dec part est.

Position of Station on reduced Ordnance Survey Map, } No. of Map..... Reference No.....
1 mile to 1 inch Series

| 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. 3108 T.F. 26RAINFALL at 5 Derwent Dale (Hawden Cl. gl.) 649

51

County of West Riding - Yorks Observer Derwent Valley Water Bd.River Basin Trent - Derwent - 5Type of Gauge SeptapertAnnual Average 44.4 in. based on 15 years obs. un-weighted. Period of average 1881-1915 Ref. 5" 44.91 " 34 " 1924-57 " 1916-50 File No. 66619/26

| Diameter ... | 5" | | | 106 | 233 | | | | | | |
|---------------|--------|--------|--------|-------|-------|-------|-------|-------|-------|---------|-----------------|
| Height ... | 1'0" | | | | 1 | | | 1'1" | | | |
| Altitude ... | 1010' | | | | 51 | | | | | | |
| Year ... | 1951 | 1952 | 1953 | 1954 | 1955 | 1956 | 1957 | 1958 | 1959 | 1960 | Means- Total |
| January ... | 5.43 | (6.96) | 2.03 | 4.52 | 4.31 | 7.55 | 3.49 | 5.19 | 4.55 | 8.86 | 52.89 |
| February ... | 5.75 | (3.00) | (3.40) | 3.62 | 4.24 | 2.35 | 4.26 | 9.65 | .38 | (3.45) | 40.10 |
| March ... | 6.90 | 2.89 | 3.00 | 3.10 | 4.75 | 2.25 | 3.49 | 4.07 | 2.48 | 3.19 | 36.12 |
| April ... | 2.79 | 3.14 | 3.75 | .78 | 1.35 | 3.28 | .47 | 1.58 | 4.64 | 2.63 | 24.41 |
| May ... | 4.07 | 3.35 | 2.94 | 4.36 | 5.63 | 1.28 | 1.64 | 4.16 | 2.20 | 2.15 | 31.78 |
| June ... | 1.19 | 2.12 | 3.60 | 2.92 | 3.97 | 4.31 | 1.50 | 5.19 | 1.94 | 1.58 | 28.32 |
| July ... | 2.95 | 2.45 | 5.07 | 4.81 | 1.35 | 8.83 | 4.32 | 6.10 | 3.71 | 6.85 | 46.44 |
| August ... | 5.71 | 2.67 | 4.86 | 7.85 | 1.08 | 8.60 | 6.83 | 3.27 | 1.28 | 4.45 | 46.60 |
| September ... | (2.75) | 6.55 | 2.05 | 5.02 | 1.79 | 4.96 | 7.57 | 4.63 | .13 | 5.56 | 41.01 |
| October ... | .90 | 8.80 | 2.45 | 6.65 | 3.71 | 3.15 | 4.15 | 3.89 | 4.04 | 9.60 | 47.34 |
| November ... | 11.89 | 4.37 | 3.04 | 8.17 | 3.05 | 2.40 | 3.98 | 1.34 | 7.40 | 6.15 | 51.19 |
| December ... | 6.90 | 4.39 | 2.11 | 7.59 | 6.04 | 6.20 | 6.61 | 6.23 | 8.10 | (5.45) | 60.12 |
| TOTALS ... | 56.63 | 50.69 | 38.30 | 59.39 | 41.27 | 55.16 | 48.31 | 55.30 | 40.85 | (60.42) | 506.32 |
| | M | M | M | M | M | M | M | M | M | M | |

1952 Jan Feb out M 30
 1955 Feb Mar part est. M.O. 3b.
 Feb. III 1955. Trees 30, 35' N, 30, 35' NE. Hillside on shelter SW-SE. Turf wall low - not really necessary. Long grass.
 1960 from wind 26 M. - from dept about. but close to N and NE have not seen out from.
 00104 60004 20004

5 Turf Wall.

(43)

Position of Station on Ordnance One-Inch map : No. of Map... 102 National Grid Reference 54177936

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

Summary of Earlier Records from 10-year Sheets :

| Record D, or d | 1910-19 <u>21</u> | 1920-30 <u>138</u> | 1931-40 <u>183</u> | 1941-50 <u>133</u> | 1951-60 |
|-------------------|-------------------|--------------------|--------------------|--------------------|---------|
| | C 19.5 | ✓ | ✓ | ✓ up +3 | |

Station No. 3108/1

TF26

RAINFALL at

Serwent Dale (Harden Clough)

51

County of

West Riding - Yorks

Observer

Serwent Valley Water Bd.

River Basin

Trent, Serwent 5

Type of Gauge

octapent

Annual Average in, based on years obs. un-weighted. Period of average

Ref.

File No.

37024/34

| Diameter ... | 5" | | | 106 | 232 | | | | | | |
|---------------|--------|--------|-------|-------|-------|--------|-------|-------|--------|--------|-------|
| Height ... | 1' 0" | | | | 1 | | | | | | |
| Altitude ... | 1090' | | | | 51 | | | | | | |
| Year ... | 1951 | 1952 | 1953 | 1954 | 1955 | 1956 | 1957 | 1958 | 1959 | 1960 | Means |
| January ... | 5.46 | (6.86) | 1.79 | 4.15 | 4.25 | (7.65) | 3.64 | 5.29 | 4.87 | 9.10 | |
| February ... | 5.93 | (3.00) | 3.37 | 4.15 | 4.15 | (2.40) | 3.80 | 7.05 | .23 | (3.62) | |
| March ... | (6.47) | 2.75 | 2.95 | 3.41 | 4.75 | 2.00 | 3.41 | 4.11 | (2.35) | 3.04 | |
| April ... | (2.75) | 3.00 | 3.27 | .55 | 1.82 | 3.20 | .35 | 1.59 | 4.76 | 2.45 | |
| May ... | 4.45 | 3.00 | 2.97 | 4.10 | 5.40 | 1.45 | 1.40 | 4.21 | 1.79 | 1.98 | |
| June ... | 1.20 | 2.50 | 2.90 | 2.60 | 3.65 | 3.89 | 1.20 | 5.27 | 1.70 | 1.36 | |
| July ... | 2.89 | 2.42 | 5.10 | 4.40 | 1.00 | 7.94 | 3.40 | 5.80 | 3.42 | 6.66 | |
| August ... | 4.91 | 2.95 | 4.65 | 6.75 | .90 | 9.61 | 6.60 | 3.27 | 1.05 | 4.30 | |
| September ... | 2.95 | 6.76 | 2.15 | 4.97 | 1.75 | 3.50 | 7.25 | 5.20 | TRACE | 5.45 | |
| October ... | .90 | 7.65 | 2.11 | 7.40 | 3.61 | 2.81 | 4.15 | 3.80 | 4.03 | 8.74 | |
| November ... | 10.83 | 3.75 | 3.17 | 7.90 | 2.80 | 2.07 | 3.68 | 1.34 | 6.84 | 7.03 | |
| December ... | 6.50 | 4.35 | 2.08 | 7.25 | 6.95 | 5.60 | 5.86 | 5.94 | 7.86 | 5.24 | |
| TOTALS ... | 54.94 | 48.99 | 36.51 | 57.63 | 41.03 | 52.12 | 44.74 | 52.87 | 38.90 | 58.97 | |
| | n.p. | M.p. | n.p. | M.p. | M.p. | M.p. | M.p. | M.p. | n.p. | n.p. | |

1951. n.p. check

1952. Jan. Feb. cat

1953 n.p. check

1954 n.p. check

1955 n.p. check gauge.

1956 n.p. check

1957 n.p. check

1958 n.p. check

1959 n.p. check

1960 n.p. check

1959. n.p. check

1960 n.p. check

1961 n.p. check

1962 n.p. check

1963 n.p. check

1964 n.p. check

1965 n.p. check

1966 n.p. check

1967 n.p. check

1968 n.p. check

1969 n.p. check

1970 n.p. check

1971 n.p. check

1972 n.p. check

1973 n.p. check

1974 n.p. check

1975 n.p. check

1976 n.p. check

1977 n.p. check

1978 n.p. check

1979 n.p. check

1980 n.p. check

Position of Station on Ordnance One-Inch map :

No. of Map 102National Grid Reference SK18926

| Date. | Lat. N. | Long. | Railway Station. | Distance Direction from gauge | Parish Church. | Distance Direction from gauge. |
|-------|---------|-------|------------------|-------------------------------|----------------|--------------------------------|
| | 04004 | | | | | |

Summary of Earlier Records from 10-year Sheets :

| Record D, or d | 1910-19 | 1920-30 | 1931-40 | 1941-50 | 1951-60 |
|----------------|---------|---------|---------|---------------------|---------|
| | | | | np. 41-50 C 1943 | |