

WESTMORELAND

WFDENT (1948) = WFDavidson & N Thomson "The North. Western Naturalist"
(1948) 23 136-154

rd. abstr.

Westmorland: bibliography

J.G.Goodchild, Trans.Cumb.& Westm. Assoc.Lit.Sci. 1881-2,
7, 101; 1882-3, 8, 189; 1883-4, 9, 175.

Contribution towards a list of the minerals in
Cumberland and Westmorland.

(abbreviated in card-index as "Goodchild (1881-4)")

card. abstr.

Westmorland: bibliography

W.F.Davidson and N.Thompson, Northw.Nat. 1948, 23, 136-54.

"Some notes on the minerals of Cumberland and Westmorland."

(The issue is for March-Dec. 1948, but the dates 1949 and 1950 - in one case "late 1950" - are mentioned frequently, ~~March 1950~~ so that the earliest date that can be assigned to this paper is 1950!)

Abbreviated in index as "Davidson & Thomson (1950)".

Actinolite

Cumb

granite Q., Shap

Adamite

Westm

See also Zincolivenite

Higher Longrigg Mts (^{Zincolivenite} Cuproadamite)
Clouds Mts (Stennerskeugh Clouds) (= Zincoliv)
Scordale (Dow Scar High Lev.) (OK)

Albite

W'morel.

granite Q, Shap

Almandine

Westm

Kidsty Pike

Amphibole, unspecified. Westm
Bluestone Q, Shap

Anatase

Westm.

Granite Q, Shap

Langdale (Spout Crag Q)

Girzedal (Eagle Crag M)

ANDRADITE

WESTM

Bluestone Quarry, Shap

Anglesite

Westm

Silverband mine

Myers Head M

granite Q, Shap

Scordale Ms

Ankente

Westm

Birkdale Farm V's

Overhearth L

Teeside Ms

Langdale (?)

(Eagle Crag M), gusedale

Anhydrite

Westm

Long Marston

Kirkby Thorne?

Annabergite

Westm.

Scordale M's.

Antimony, native

Westm

Greenside M

Grizedale (Eagle Crag M)

Hantsop Hall M

Myers Head M

Apatite

Westm.

Granite Q, Shap

Langdale (OH-?)

Ruthwaite Lodge M, Grizedale.

Apophyllite

Westm

Bluestone Q., Shap

ARAGONITE

WESTM

Duften

Duften Fell

Silverband mine

Long Fell M

"Harcla"

Muni chalcite

Weston

Scordale

Inisidale M's (Eagle Crag)

High Stennerskeugh Lev.

Clouds M

Myers Head M

Azurite

Westm.

Higher Longrigg M's

Hartley Birkett

Clonks M

Rigg Head (? cumb)

Cumpston Hill

Grizeclak M's (Eagle Crag M)

Myers Head M

BARYTE

Bluestone Quarry, Shap
Dufton
Dufton Fell
Greenside mine
Long Fell mine
Lowfield vein & hush
Patterdale
Scordale mines
Silverband mine
White mines
Higheer Longrigg Mines
Knife Tarn mine
Amber Hill V's
Rugill V
Birkdale Farm V's
Cabbish M

WESTM

Carry Band V's
Carry Pots V's
Dun Fell M
Green Bowne L
Key Scar V's
Lodgegill Sike V
Long Fell M
Middle Fell V's
(Overhearth L (?))
Stakebeck M
Threlkeld Side M
Hartsop Hall M
Hartley Birkett

Clouds M

Shot Moss

"Harcla"

Knoek Ore Gill

Granite Q, Shap

Loppysike L

Myers Head M

(Eagle Crag M) Grisedale

Baryocalcite

Westm.

Loppysike M

Stakebeck M

Bastnäsite

Westm

Granite Q., Shap

Bavenite

Westm

granite Q, slap

Berthierite

Westm

Hogget Gill
High Hartsop M

Bertrandite

Westm

granite Q, Shap

Beryl

Westm

granite Q, Shap [error for milarite]

Beyerite

Westm

Granite Q, Shap

Biotite

Westm.

Granite Q., Shap

Bismuth, native

Westm

grande Q, Shap

BISMUTHINITE

WESTM

Granite Quarry, Shap

Bluestone Q, Shap

Bournonite

Wentm

Greenside M

Grizedale (Eagle Crag M)

Hantsop Hall M

Myers Head M

Brochantite,
(Eagle Crag M) Grisedale.

Westm

Brookite

Westm.

Granite Q, Shap.
Langdale

Cadmium sulphide, amorphous. Westm
See also greenockite

Scordale M's

Teeside M's (Hardskin's Level)

CALCITE

Bluestone Quarry, Shap
Dufton
Greenside Mine
Helvellyn
Patterdale
Scordale Mines
Silverband Mine
Whitbarrow Scar
Botwick Fold mine
Green Bourne L
Higher Longrigg Mts
Granite Q Shap
clouds M
"Harcla"

WESTM

Myers Head M.
Orton Scar
High Stennerskeugh Lev
Langdale (?)
Grisedale (Eagle Crag) M

CELESTINE

WESTM

Burton

CERUSSITE

WESTM

Patterdale

Silverband mine

Staveley Head mine

Greenside M

Duffton Fell M

Scordale Ms

Clouds M

Garsdale Ms (Ruthwaite Lodge)

xx (Eagle Crag M)

Myers Head M

Granite Q., Shap.

Chalcedonic silica

Westm.

Orton Scar

Greenside mine -

[Glencoyne adit, CUMB]

Cumpston Hill

CHALCOPYRITE

Greenside mine

Knife Tarn mine
Borwick Fold mine
Key Scar V's
Higher Longrigg M's
Scordale M's
Hartley Birkett
Clouds M
Bluestone Q, Shap
Tinker Hill V's
Hartsop Hall M

WESTM

Myer Head M
Orton Scar
Grisedale M's
(Eagle Crag; Ruthwaite Lodge)
Cumpston Hill
High Stennerskeugh Lev
Shap Granite Q

CHLORITES (unspec)

WESTM

Bluestone Quarry, Shap

Langdale

Granite Q, Shap

Ruthwaite Lodge M, Grizedale (?)

Chrysocola

Westm.

Bluestone Q, Shap
Scordale Mls

Copper minerals, unspecified
"COPPER ORE"

WESTM

Wild Boar Fell

Long Sleddale

"Copper pitch"

Amber Hill V's

Westm.

Cosalite

Westm

Granite Q, Shap

Covellite

Westm

Granite Q, shap.

Descloizite

Western

Higher Longrigg M's (?!) AWGK

DOLOMITE

WESTM

Ullswater

Bowwick Fold mine

Augill V

Orton Scar

Duffite

Clouds M

Westm.

Epidote

Westm.

Bluestone Q., Shap.
Granite Q., Shap

ERYTHRITE

WESTM

Bluestone Quarry, Shap

Scordale M/s.

FELSPARS *misc*

WESTM

Shap

Shap granite Q, Shaps

Ferrimolybdate

Westm

granite Q., Shap

FLUORITE

Granite Quarry, Shap

Hartsop Hall mine

Hilton mines

Murton mines

Scordale mines

Amber Hill V's

Hunter's Vein M

Lowfield V

Nether Heath Vs

Overheath L

Swathbeck M

Teeside M's

Higher Longrigg M's

WESTM

Hartley Birkett

Clouds mine

Great Bells mine

Duften Fell M

Silverband M

Long Fell M

"Harcla"

Orton Scar

High Stennerskeugh L.

GALENA, "Lead ore"

Duften
Greenside mine
Hartsop Hall mine
Helvellyn
Hilton mines
Lowfield vein & hush
Murton mines
Silverband mine
White mines

Borwick Fold mine
Staveley Head mine
Rugill V
Birkdale Farm V's
Cabbish M
Duften Fell M

WESTM

Dun Fell M
Green Bourne L
Hunters Vein M
Key Scar V's
Lodgegill Sike V
Middle Fell V's
Nether Heath V's
Overheath L
Scordale M's
Stakebeck M
Swathbeck M
Teesside M's
Higher Longrigg M's

Eagle Crag (Grisedale) M

Myer Head M

Clouds M

Hartley Birkett

Bluestone Q, Shap

"Harcla"

Knock Ore Gill

St Sunday Crag (?)

Grasmere M

Dod End mine (?)

Grisedale M's (Eagle Crag, Rithwicote Lodge)

Loppysike L.

High Stennerskeugh L.

Granite Q, Shap.

Garnet, unsp. spec.

Wextin

Bluestone Q, Shap (see also p. 100)

Gersdorffite

Westm.

Scordale M's (incl(?). Co-iferous)

Gladite

Wostm

granite Q, Shap

GOETHITE

(See also "LIMONITE")

WESTM

~~Hilton mines~~

Scordale M's

Silverband M

High Stennerskeugh L.

Myers Head M

Greenockite Westm.
See also cadmium sulphide, amorphous

Greenside M

GROSSULAR

WESTM

Bluestone Quarry, Shap

GYPSUM

WESTM

Acorn Bank, Temple Sowerby

Kirkby Thore

Long Marton

Scordale Ms

Long Fell Ms

HAEMATITE

WESTM

Bluestone Quarry, Shap

Whitbarrow Scar

Higher Longrigg M's

Red Tarn

Tongue Gill

Silverband M

"Harcla"

Kirkby Thore.

Granite Q., Shap

Harmotome

Westm

Grisedale M's (Ruthwaite Lodge)

Hemimorphite

Westm

Higher Longrigg M's

Greenside M (Glencoyne adit)
in CUMB

Grisedale M's (Eagle Crag)

Myers Head M

Swathbeck M.

Hornblende

Westm.

Bluestone Q. Shap.

Hydrohaematite

W'me

"Harcla"

HYDROZINCITE

WESTM

Grisedale mines, (Eagle Crag vein)

Hartop Hall M
Scordale

IDOCRASE

WESTM

Wasdale Head Farm, Shap

Iron minerals, unspecified

"IRON ORE"

WESTM

Tongue Gill [Haematite]

JAROSITE

WESTM

Hartley Birkett

Langite

Westm.

Myer's Head M (?)

Laumontite

Westm.

Bluestone Q, Shap

Leadhillite

Westm.

Myer's Head M.

"Limonite" = GOETHITE

Westm

Birkdale Farm V's

Dufton Fell M

Dun Fell M

Hunter's Kem M

Lodgegill Sike V

Nether Nearth V's

Overhearth L

Scordale M's

Silverband M's.

Swathbeck M

Amber Hill V's

Shot Moss

Knock Ore Gill

Loppysike Level

Linante

Westm

Hartley Birckett

Clouds M

Grisedale M's (Eagle Crag; Rithwaite Lodge)

Myer's Head M

Magnetite

Weston

Bluestone Q, Shap

MALACHITE

Staveley

Long Fell M

Higher Longrigg M's

Clouds M

Scordale M's

Amber Hill V's

"Harcla"

Grisedale M's (Eagle Crag, Rithwaite Lodge)

Cumpston Hill

High Stennerskeugh L.

WESTM

Staveley Head M

Myer's Head M

Marcasite

Wenton.

Greenside M
Bluestone Q, Shap

Mica, unspecified

Westm

Granite Q, Shap

Bluestone Q, Shap ("hydrous")

Millarite

Westm.

Granite Q, Shap

Millerite

Westm.

Scordale M's

Mimekte

Westm

Clouds M

Grisedale M's (Eagle Crag M.)

Hantsop Hall M.

Scordale M's

MOLYBDENITE

WESTM

Granite Quarry, Shap
Shap

Muscovite

Westm

Duften

NACRITE

WESTM

Bluestone Quarry, ~~Wastm~~ Shap

Niccolite

Westm.

Scordale M's

Pectolite

Waxton

Bluestone Q., Shap.

Prehnite,

Westm.

Bluestone Q, Shap.

Psilomelane

Westm.

Silverband M. [Error for romanechite]

PYRITE

WESTM

Bluestone Quarry, Shap
Granite Quarry, Shap
Dufton

staveley Head mine
Augill V.
Scordale M/s

Pyrolusite

Westm.

Silverband M

Remington's V's

Pyromorphite

Westm.

Hartsop Hall M.

Clouds M

Grisedale Ms (Rithwaite Lodge; Eagle Crag M)

Myers Head M

Silverband M

Scordale

Granite Q., Shap

QUARTZ

Bluestone Quarry, Shap
Greenside Mine

Borwick Fold mine

Frost Hole

Staveley Head mine

Amber Hill V's

Nether Heath V's

Scordale M's

Teeside M's

Higher Longrigg M's

Saint Sunday Craig

Granite Q, Shap

WESTM

Hartsop Hall M
grisedale M's, Eagle Crags V
Myer Head M Ruthwaite
Lodge
Cunpston Hill
Langdale
▽

Romanèchite

Westm.

Remington's veins, Silverband M.

ROSASITE

WESTM

Grisedale mines, Ruthwaite Lodge vein

Scordale

Higher Longrigg Mts.

Myer's Head M

Rutile

Westm

Langdale

Granite Q. Shap

Scheelite

Westm

Granite Q, Shap.

Siderite

Westm

Green Bourne L

Overheath L

Kirkby Thore

Smithsonite

Westm.

Dufton Fell M
Scordale Ms

SPHALERITE

WESTM

Greenside mine

Nether Heath V's

Silverband M

Teeside M's

Grisedale M's (Eagle Crag)

Hartsoy Hall M

Duffton Fell M

Scotdale M's

Grasmere M(?)

Myer Head M.

(Shap Granite Q.)

Stibnite

Westm

Saint Sunday Crag

Hartsop Hall M(?) ("a peculiar kind of
antimony sulphide")

SULPHUR

WESTM

Duften

Duften Fell M

Synchysite - (ce)

Westm

granite Q, Shap (?)

Tennantite

Westm

Clouds M

Higher Longrigg M

High Stennerskeugh L

Grizedale (Eagle Crag M)

Tetrahedrite

Westm

"Clouds M" (Tennantite)

Hartley Birkett

"Harcla"

Greenside M

Grizedale (Eagle Crag M)

—H— (Ruthwaite Lodge)

Cumpton Hill

Thaumasite

Westm

Kirkby Thore

Bluestone Q, Shap

Thenardite

Westm

Kirkby Thore

Titanite (sphen)

Waxm

Granite Q, Sharp

Vanadinite

Westm

Higler Longrigg Mls. (71) AWGK

WITHERITE

WESTM

Duften Fell

Scordale M/s

Stakebeck M

Greenside M

Duften Fell M

Silverband M

Loppy sike L

Wollastonite

Westm

Bluestone Q, Shap

Wroclawolfeite

Westm.

Myer's Head M (?)

WULFENITE

WESTM

Hartsop Hall mine

Grisedale M's (Ruthwaite Lodge)
+ Eagle Crag M)

Myers Head M

Granite Q, shop.

Xenotime

Westm.

granite Q., Shap [~~Error~~ for zircon]

Zincolivenite

Westm

Higher Longrigg M's
Cloude M (Stenkerskeugh)

Zircon

Westm

granite Q. Shap.

1" 83

NY 616 282

ACORN BANK, Temple Sowerby, Westm.

TMH(1868), 70: In N.R.S. Gypsum

WFD & NT (1948) Fine clear xls. selenite were
found in Acorn Bank mine, but it is
now flooded

1" 184

NY 762 222

AMBER HILL VEINS, Murton, Westm.

See also SCORDALE MINES, etc.

KCD (1948) 138. MAP, p. 136. At head of Stow
Gill, Scordale (E side) two trial levels
[around 763-4 224] one called EAST LEVEL, into
sandstone - unsuccessful.

To the SW on Amber Hill trials [762
222]
found two 11' veins - lowfield & Amber Hill v's.
with flats containing baryte, quartz, &
amber fluorite

RSWB, PT. 31/10/70; V Amber Hill trial adits run
in, buried in scree. In scree: baryte, sheafy and
good big (2") clear xls, Silverband-type; quartz xls;

malachite, tiny needles in limonite-goossan
with chalcopryite altering to "copper pitch"

1" 84

1" 84

NY 8215, 8216

AUGILL VEIN, Stainmore, Westm.

KCD (1948) 140 Vein crossing Augill Beck
in a belt of steeply dipping strata
 $\frac{3}{4}$ ml NNE of the main road [ie. 822 155];
thoroughly dolomitised with many
tiny cracks filled with galena,
pyrite & pink baryte. Has been
worked opencast - one trammed to a

mill $\frac{1}{2}$ ml NNE of the road, & now in ruins.

Low grade orebody, extending as much as 50' N of the fault, which may be N contin. of Dent Fault system.

OSI" 84 shows "Mine (Dis.)" at Augill Head, [826163] just over 1 ml NNE of the road.

1" 83
BAMPTON

Westm.

NY 49 16

OS 2½" map "Engl. Lakes NE" shows "Old
Mines" at 496 160, (~ 700 y due W of
N end of Haweswater Dam).

~~18/17~~
~~19/15~~
~~26/17~~

BELLS MINE, Mallerstang, Westm.

See GREAT BELLS MINE

1"84 Around NY 7927

BIRKDALE FARM VEINS, Dufton, Westm.

cf BIRKDALE HUSH, Lunedale, Yorks.

KCD(1948) 287. Farm is $1\frac{1}{2}$ ml SSW of Cowgreen mine

(i) 3 narrow NE veins cross Cocklake Sike, NW of Birkdale Farm. White platy baryte, traces galena.

(ii) A NNW vein in Grain Beck, $\frac{1}{4}$ ml to W. Hush & shaft [near 798 278]. Baryte, limonite, traces galena.

(iii) Short adit to a NNW vein at head of Grain Beck - galena in ankerite.

1" 83

N^y 667 25^y

BIRKS HEAD MINE, Long Marton, Westm.

See ~~W. J. W.~~ LONG MARTON.

1" 83

NY 3916, 3917

BLEAWICK, Patterdale, Westm

OS 6" map shows old levels near Bleawick,
at 398164 & 396171

"BLUE ROCK QUARRY", Shap, Westm.

See BLUESTONE QUARRY.

Rayners' Cat. (1960). Andradite; nacrite.

~~See~~

1" 83

NY 564 105

BLUESTONE QUARRY, Shap, Westml. (I)

See also SHAP; GRANITE Q.; WASDALE HEAD Fm.

AWGK Dark brown massive lumps of grossular in very hard baked Borrowdals.

Firman, MM, 30, 199 (1953) "SHAP BLUE QUARRY" (Roadstone), 700 yds N of granite contact, in metamorphosed lavas, on W side of Penrith-Kendal Rd, 3 ml S of Shap.

Nacrite, thin microcline pale apple green to white layers on joint with chlorite, haematite, pyrite, & traces erythrite, and often with quartz, calcite, baryte.

Rayners Cat (1960) "BLUE ROCK QY" Shap. Andradite; nacrite.

WFD & NT (1948) "BLUE ROCK" (RHYOLITE) Q. Some small mineral veins traverse the altered lavas:

Garnet, fine xls, average ca $\frac{1}{4}$ in; up to 3 in.
Barite; pyrite; chalcopysite; chlorite;
chrysocolla; epidote; hornblende;
calcite. quartz; massive galena;
bismuthinite rare.

"The Lake District" (1982) (Cumb.-Geol. Soc; Field Notes) 15-20.
Wollastonite, quartz, pyrite garnet epidote
haematite. Dark green feathery amphiboles
in vesicles.

R. Starkey (1998) BMSN 30 9-13. Found apophyllite, with
prehnite & epidote, in 1987

BLUESTONE Q'y, Shap, Westm. (II)

B. Young et al (1998) J. Russ. Soc., 7 40

Thaumasite, a few blocky hex xls
→ 0.7 mm encrust prehnite xls in small
cav in compact prehnite; checked XRD (BM)

garnet, epidote, quartz, calcite, chlorite,
marcasite, magnetite, haematite,
hydrous mica "etc.". Late h'thermal
abundant laumontite, pectolite; rarely
apophyllite (Young et al, 1988, Min Mag
52, 133)

BMSN (2000) 55, 9, 10. M. Wirth → BMS Coll
2180: Orthoclavella (adularia).

SD 443 969

BORWICK FOLD MINE, Nether Staveley, Westm.

See also STAVELEY

RBYuen, Priv. Comm, 2/69. Tarn shown on $2\frac{1}{2}$ "

OS map SD 49 at above map ref covers
shaft. Quartz gangue, lead mine,
with some Cu.

Specimen seen by RSWB - ~~seen~~ thin calcite-
dolomite veinlet with scattered xls
of chalcopysite.

1" 83

NY 34 15

BROWN COVE MINE, Patterdale, Westm.

See also GREENSIDE M., HELVELLYN (Cumb). ~~+~~ RED TARN M

W.T. Shaw (1970) 76 Map shows "Brown
Cove mine" between Keppel Cove & Red
Tarn [ie ~ 34 15]

1" 83

NY 69, 32,

BURNS LEVEL, Milburn, ~~Mass~~ Westm.

see also GILBERT LEV; SILVERBAND M.

SD 5276 OR NY 7418

BURTON, Westmoreland.

TMH (1868), 70: In Mount. Limes. Celestite.

W Phillips (1823) Celestine - pale blue, radiated,
the surface x-limed

WFD & NT (1948) An old record which we have
not checked [no refs.] mentions celestite
in limestone

OS gazz: There are Two Burtons in Westmoreland! -
at SD 5276 & at NY 7418, BOTH
on or near Carb. Lim!

1" 84

N4

839 155

CABBISH MINE, Stainmore, Westm'd.

KCD (1948), 141. Ba, Pb. Baryte, galena

Nr. Peniston Green House, $\frac{1}{2}$ ml NE of North
Stainmore Church

OS 1" 84 shows "Level" at 839 155

1"84 NY 80 16

CARRY BAND VEINS, Hillbeck, Westm.

KCD (1948) 140 Trials on three ca E-W veins
on N side of Carry Band, $1\frac{1}{4}$ ml NNE
of Brough, show baryte.

1"84

NY 77 19

CARRY POTS VEINS, Warcop, Westm.

KCD (1948) 140 At S end of Long Fell, near
Long Fell Pike, the Carry Pots fault
splits into branches, some with
baryte — also on the E side of
Tinside Rigg. [7720]

~~obs~~

1" 90

SD ~~736~~ 736994CLOUDS MINE, Ravenstonedale Westm (I)

See also WILD BOAR FELL, HIGH STENNERSKEUGH LEVEL.

KCD ("F") (1952) 66: Fluorite1" OS map "Old Lead mines" shown near SD 7399,
in Clouds gillOS 6" map: "Clouds Lead Mines", near 736 994
Old Sh (Pb) at 7435002WFD & NT (1948): Same minerals as at
Hartley, i.e. galena, chalcopryite, fluonite,
baryte, linarite. Tetrahedrite & azurite

both recorded [no refs.] but neither
found by us; possibly the "azurite" =
linarite. A greyish metallic substance
x-rayed by BM = cerussite with chalcopryite,
etc. [!]. Pyromorphite, yellowish coating

JG Goodchild (1881-4) Trans Camb & Western Assoc Lit sci.

Cu in Carb Lim. has been wrought at Clouds M.
Fahlerz or tetrahedrite in veins traversing
disturbed mass of l'st; with galena,
fluorite, calcite, & baryte; irregular lumps.
Malachite

CLOUDS M., Ravenstonedale, Westm (II)

B. Young, spec $\rightarrow$ RSUB 6/87 (RSUB 87-72). Baryte,
with chalcoprynite, tennantite ("XRD"),
azurite; olive green powdery crust (IR:
small sample, weak spectrum: - "B43" - arsenate?)

N. Penn Oref (1985) 2; 1, 90, 97, 232, 113.

FELL END CLOUDS SCRINS; JOHNSON'S V; CLOUDS V., CLOUDS
N.V. galena, baryte, clear fluonite, "copper
sulphides" - chalcoprynite. The "fahlerz"
of Clough (in Dakyns et al (1891) 167) analysed
by Small is tennantite. ($As_{3.71}Sb_{0.31}$)...

R.E. Starkey (1987) Proc. Yorks. Geol. Soc. 46 [3], 289
(Quoted by B. Young (1987) Trans Leeds Geol. Ass 11 [2] 1-7.
Traces of aurichalcite ✓ with diestite ✓
and mimetite ✓ in partly ox. vanadinite-
rich ore from dump of old shaft at
SD 744 002 on Clouds V. in Robinson L'st.

R.E. Starkey ~~off~~ (coll 8/87) "Adamite" (xRD, BMNH)
from dump at NY 743 002, Stennerskeugh
Clouds

R. Swob et al (2009) J. Russ. Soc. 12, 3-9.
The "adamite" is zincdivenite.

COLT HOUSE Q'y, Langdale, Westm.

See LANGDALE

SD 44 91

CROSTHWAITE GREEN, Crosthwaite, Westm

RBYuen Riv. Comm. 2/69 Remour exists of
a ~~mineral~~ ^{trial} in this area, on a vein.
?? Extension of Stanton iron ore deposits?

CROWDUNDE BECK, Milburn, Westm
(and Culgaith, Cumb)

See HUNTER'S VEIN MINE, Westm

1" 90

SD 78 97

CUMPSTON HILL, Mallerstang, Westm. (Cumb).

B. Young, spec → RSWB 6/87 (87-71) From CUMPSTON
 HILL S. VEIN, at 7815 9749. Quartz, with
 azurite, malachite chalcopyrite, minor
 tetrahedrite, with apple green crust
 (IR: "BY2" apple green crust = $\text{quartz} + \text{CO}_3^{2-} + \text{OH}^-$;
 weak spectrum, from small sample) [?? partzite, impure??]

Small (1982) Proc Yorks Geol. Soc. 44 153-8
 Tetrahedrite

N. Penn Orefield (1985) 2, 91, 97, 101, 103, 108, 115, 117

Tet'hed from Hanging Lund Scar 783 975 has comp.

$(\text{Cu}_{10.21}\text{Ag}_{0.02})(\text{Fe}_{0.69}\text{Zn}_{1.06})\text{Pb}_{0.03}(\text{As}_{1.6}\text{Sb}_{3.16})\text{S}_{12.74}$.

Also quartz, calcedony, chalcopyrite,
malachite, azurite.

N & S VEINS, N 47°C cutting sandstone. Exposed
in bed of R. Eden

1° 83

NY 39 13

DEEPDALE MINE, Patterdale, Westm.

W.T. Shaw (1970) p76. Map shows "Deepdale
mine" near NY 39 13.

1" 83

NY 4

1

DOD END MINE, Patterdale, Westm.

See also MYER(S) HEAD MINE

W.T. Shaw (1970) 99. "Dod End Mine" mentioned
as near Myers Head mine. [Is this
the old levels (Pb) on OS 6" map at
410 126 e 410 127 ?]

1" 83

NY

69

25

DUFTON, Appleby, Westmoreland.

TMH (1868), 70: In Camb. lim. & Yoredale. Aragonite;
baryte; calcite; galena; pyrite; sulphur.

For Silverband Mine, etc, see MILBURN PH.

WFD & NT (1948) Quarry in DUFTON PIKE [cent.
on NY 700 266] - large plates
muscovite common in microgranite

1" 83, 84 Large area, centred ca NY 75 29

DUFTON FELL, Appleby Westm.

See also DUFTON FELL MINE, THRELKELD SIDE M;
STAKEBECK M; etc.

TMM (1868), 70: Aragonite; baryte; witherite.

1" 83

ca NY 719 278

DUFTON FELL MINE, Dufton, Westmoreland

See also THRELKELD SIDE MINE

GEL (1858) (T. Bridges & B. Young, 1998) Nat sulphur small xls
on large xls galena
"DUFTON MINE"

KCD (1948), 94, 133. Ba, Pb. Some of the

largest baryte xls ever discovered came from
the Tynebottom limestone flats - one weighing
ca 1 cwt [Brammal, (1921)].

On SE side of Rindale Beck, 3ml NE of Dufton.
A series of levels - lowest at 1500' OD, (cf.
Threlkeld Side mine). Some flats worked above
the level at 1740' OD. Main production, with
many smallish flats, from Atkinson's Level, 1875' OD.

in Tynebottom Lst.

Galena, baryte & aragonite replacing l'st;
near surface, also limonite & clay. The
baryte in white opaque masses & water-clear
x/s. 1 cwt x/s in G.S. Mus.

WFD & NT (1948) "DUFTON MINE" Baryte, v. large x/s.
Witherite, light brown, in nodules. Blende,
galena; cerussite; greenish yellow
calamine [smithsonite]. Aragonite, as
satin spar & flos-ferri (magnificent, coral-
like growths up to 18 in long). Fluorite,
small yellow cubes. An old record speaks
[sic! no ref.] of nat. sulphur in large rough ^{octahedra} of galena.

1" 83

NY 712 318 - 720 318

DUNFELL HUSH, Milburn, Westm.

See also DUNFELL MINE; ~~HENRAVE HUSH~~.

1" 83

NY 720 318

DUN FELL MINE, Melburn, Westmoreland
 See also SILVERBAND MINE; LOPPYSIKE LEVEL,
 REMMINGTON'S VEINS;

KCD (1948), 131. Ba, Pb, Fe. On E side of

gt. Dun Fell. Mineralis'n v. diff from Silverband.
Baryte & galena relatively rare, but much
limonite, replacing limestone.

722-
323-
 Loppylike Vern explored from Loppylike
 Level, mouth 1550' N of Dun Fell low level - runs
 WNW, reaching vern at 550' - drift on vern only
 150' long. On dump: baryte, withersite,
limonite, small amounts galena

See under
LOPPYSIKE
LEVEL

OS 6" & 2½" maps show HENRAKE HUSH at 717320-722319
DUNFELL HUSH at 712318-720318 and DUNFELL
MINE at 721318

T. Bridges & B. Young (1998) JRS. "Limonite, yellow
ochre" - DUN FELL HUSH (NY 714 318)

EAGLE CRAG VEIN, Patterdale, Westm.

See Under GRISEDAL MINES

FAIRFIELD MINE, Grasmere, Westm.

See TONGUE GILL

SD 489 987

FROST HOLE, Staveley, Westm
See also STAVELEY

RBJ Yuen, Priv. Comm., 2/69. 2 old trials (? Pb)
close together, on E side of the beck,
at above map ref. between Frost Hole
and Side House. Tailings seem to be
barren quartz.

GILBERTS LEVEL, Milburn, Westm.

See SILVERBAND MINE

1"83

NY 697 321

GILBERT LEVEL, Milburn, ~~near~~ Westm.

See also BURNS LEV., SILVERBAND M.

Part of Silverband complex? Burns Level
nearby, also opencast for baryte
below the level, near 693 321

GRAIN BECK, Dufton, Westm.

See BIRKDALE FARM VEINS

GRASMERE MINE, Grasmere, Westm.

W.T. Shaw (1970), pp. 75, 102. Elizabethan

lead mine high up Greenhead Gill,
~ 1 3/4 ml NE of Grasmere. Old road
to plant. 4 small EW veins, with
a ~ 100 ft crush zone, traced by opencasts
& shallow shafts with a X-cut adit
lower down the gill (?). Mill erected 1569.
Sh. on N vein still 20 ft deep. Main
workings on S vein, from St. ~~Benedict~~ Benedicts Sh.,

across beck from old mill. A sample of
ore in 1939 gave Pb, 2.65; Zn, 10.65% Ag 0.3
oz/ton. [ie galena, sphalerite ?]. Closed 1573,
never reopened.

1" 90

NY 786 043-7

GREAT BELLS MINE, Mallerstang, Westm

KCD "F" (1952) 66: Fluorite

1" 84

NY 767 315

GREEN BOURNE LEVEL, Dufton, Westmoreland

KCD (1948), 278. Pb. On E portion of Dun Fell Vein - not tested for 4200' E of Moss Burn. G.B. Level starts from Green Burn 4000' WSW of its junction with the Tees. Runs 525' W along a fault, turns NNW & reaches main vein by 280' x-cut. Workings for 3000' along Dun Fell Vein. Poor. No stopping known to have been done. Small amounts of baryte, calcite, siderite on dumps.

GREENSIDE ~~LEAD~~ MINE, Glenridding, Patterdale, Westm (I)

OS 6" map shows a number of old levels at this mine.

Rayners' Cat. (1960): Chalcopyrite; galena; quartz; calcite,
tabular.

Postlethwaite (1913). N-trending vein & E-trending cross-veins
with no ore. Strings of galena with blende;
baryte; pyrite. Late 18th Cent. mine.

Daily Telegraph 20/12/59. Two 1 ton charges of TNT detonated
1,000 ft below ground, on 19/12/59 by AEA scientists
in tests to show whether underground nuclear
explosions can be detected.

T. Eastwood N-F (1959), 152.

Has section.

Quartz; galena;

pyrite; blende.

Working.

HR Kent N-F (1959), 210. Will close ca 1959-60 from lack of ore.

G & L (1858) Calcite, at "Greenside Mine, Cumb"

WFD & NT (1948) Galena; baryte, witherite, & cerussite
from the older workings. A little cockscomb
baryte visible in an open level in the old top
workings. Sphalerite; a trace greenockite on
sphalerite; calcite, nail-head & dog's tooth,
UV fluorescent - deep salmon; quartz; marcasite;
~~GL~~ GLENCOYNE ADIT - a short level on the
higher part of the Greenside vein, to the
N of the present working, & part of the very old

GREENSIDE MINE, Patterdale, Westm (II)

[in Cumberland, q.v.]

workings of Greenside mine. \ From a small
dump here - mammellated hemimorphite,
mostly bright blue (very similar to that
from Roughton Gill) on cockscomb baryte;
some white on chalcedonic quartz

[OS ~~1~~ 6" map: The only mine shown in Glencoyne-
dale is "Old Lead Mine" at head of dale at
360(0) 190(0)]

RSWB, TBG. 12/63. IV, 48. u/s. Galena, quartz, baryte.

W.T. Shaw (1970) 75-90. Photos. History, descrip.
Prob. discov. in Eliz. times ^{or 17th Cent} - "not very ancient".
~ NS lead vein, about 1 mile explored
nearly all in W'mld, & so registered.
Rarely closed until worked out
in 1962.

Top & middle levels prob. driven by Dutch ~ 1690.
Jilgowers L & High Horse L prob. nr end 18th Cent.
V. profitable in 19th Cent. Low Horse L
& Lucy Tongue L.

For geol etc see D. Gough, Econ Geol 60 [7] (1965) (Nov).
Vein filled w. broken rock, quartz, and

GREENSIDE MINE, Patterdale, Westm (III)

in higher levels, baryte. Galena is only econ. mineral. No baryte below Low Level.

Stanley CJ & Vaughan DJ, MM (1981) 44 257-60

Intergr bournonite & nat antimony in galena, in polished sections from 3595 1880

Gough, D. (1963) PhD Thesis, Imper. Coll. London
Bournonite & tetrahedrite, incl. in galena

NY 356-7 142-3
358 142

EAGLE CRAG VEIN ^{MINE} GRISEDAL MINES, Patterdale, Westm. (I)

OS 6" map shows Old Levels at Eagle Crag near 3567, 142-3

BM: Hydrozincite, shiny crust - "Eagle Crag Mine, Westm."

Postlethwaite (1913), 127. Adit, on NW side, and at the upper end, of Grisedale Glen. Lead ore

WFD & NT (1948) Blende; galena. Mr. R.C. Walsh got into the old level in 1946 & coll. some nice hydrozincite, but 6 wks later was unable to re-enter $\therefore$ a fall.

WT Shaw (1970) 90-92. Ancient, but most
worked in 19th Cent

Main vein EW & prob continues W for
2 mls to Wythburn Mine [= HELVELLYN M, Cumb, q.v.]
galena, in quartz. E end terminates
at a 'X-course' in Grisedale beck. $\frac{1}{4}$ ml further
E is trial at base of St Sunday Crag [q.v.]
7 levels on E. Crag vein. Lowest = No 1
on vein $\sim 60'$ above beck, which is here $\sim 780'$ OD
[ie level at $\sim 840'$ OD?]. No 2 20 fm higher
- good spec's hydrozincite, formed on
floor post-mining. Rise to No 3 15 fm
higher - starts in foot of the steep crag.
No 4 40 fm above No 3, long closed.

(EAGLE CRAG ^{MINE}
VEIN) GRISEDAL M's, Patterdale, W'ml.

No 5 level ~ 1650ft OD. No 6 level to E (II)
e No 7 lev. to S, near top of crag.

Stanley CJ e Vaughan DJ, MM (1981) 44 257-60

Tetrahedrite, bournonite e nat. antimony
intergr in pol. sections of galena
from NY 3545 1435

B. Young (19) 403-4. galena, sphal.
chalcopryite; well-xl tetrahedrite. Malachite
hemimorphite, hydrozincite, aurichalcite, linarite.

F. Ince, Priv. Comm (11/91) Tetrahedrite,
good $\frac{1}{2}$ cm xls but weathered.

Rothwell & Mason (1992) 11 30-40. Wulfenite,
(a) one 1mm orange xl on qtz [N. Thomson (1984) - priv
comm.]

(b) 2 pale greenish-yellow plates to 2mm w.
hemimorphite on dump from No. 3 level
[T. Neal, priv-comm 1991, det'd visually].

M Rothwell (1998) BMSN 5113; BMS Coll 2047: Calcite
BMS Newsl (1999) 52, 6. BMS Coll 2072. M Rothwell:
mimetite (2000) 55, 10 D. green green mimet
with sulfenite; azurite

(EAGLE CRAG M., V.) GRISEDAL M's, Patterdale, W'm'd (III)

Eagle Crag Mine, Patterdale, ~~Cumbria~~ ^{Westm}
[Grid Ref: NY 358 142] -
18 September 1994 RSN(195)26
NB, Leader: N. Thomson

Only five members attended, including two from Derbyshire. The low turnout was possibly due to confusion over the meeting place and I would like to apologise to anyone who had a fruitless journey. A rendezvous point map reference will be given for future meetings. Apart from this, the day went very well, as this was a new locality for all the members present and the weather remained fine. Much enjoyment was also added to the trip by the magnificent glaciated scenery of the area, with the Helvellyn range and Nethermost Pike forming a backdrop to the collecting site.

The Eagle Crag Mine is situated on the west side of Grisedale Valley, this forming the eastern slopes of Helvellyn, and is around 4km SW of Patterdale. The main Eagle Crag lead vein runs E-W and traverses gently dipping tuffs of the Borrowdale Volcanic Group. It can clearly be

traced from the tips at the base of Eagle Crag, dipping south slightly up the steep face to the summit of Nethermost Pike. The ore occurring as a solid rib of argentiferous galena (16oz Ag/ton Pb), together with the vein's persistence, resulted in it being extensively worked by ancient miners. The vein rarely exceeds 45cm in width and the principle mineralisation is galena and a friable quartz. The mine was worked intermittently throughout the 19th century, by both self-employed miners and the Patterdale Mining Company.

The day's collecting yielded both lead and copper minerals, namely aurichalcite, cerussite, hemimorphite, malachite and tetrahedrite (both massive and crystals).

BMS Newsl (1999) 53, 9/10 M. Rothwell → BMS Coll.

v.v. pale bipy.

Wulfenite, aurichalcite, pyromorphite w hemim.
2108 2109 2110

Jennantite [cf tetrahedrite v. supra] (2111)

hydrozincite (2112).

RSWB 92128 ex R. Bell. Azurite micro
xlg with malachite, chalcocynite,
on quartz

RSN (2000) 39 19. D. Green. Anatase; blue hemim; Ca,
aurich, linar, mimet, wulfenite, azurite.

(EAGLE CRAG M.) Grisedale, Westm (IV)

T. Bridges, RSN (104) 44, 26 Visit. Gangue
includes ankerite. Pb, Cu lower dumps,
Zn higher. Baryte on one higher up
dump. Supergreens as before +
brochantite.

~~IRONMAYAR~~ or TONGUE
RUTHWAITE LODGE VEIN NY 35 13, 3613,
GRISEDAL MINES, Patterdale, Westm.

AWOK & Huntley MM 31, 501, (1957) Rosasite.

OS 2 1/2" NY 31 shows Ruthwaite Lodge at 355, 135, ~~also~~ the 6" map
shows "Old Level" nearby, at 360 138. Also several
old levels near 35 x 14 y.

B. Young (1986) Proc. Camb. Geol. Soc.
4 [4], 403-4. Wulfenite from dumps
of a small trial pit at 355 136, sparingly;
pale brown to brown-yellow simple sq. tabular
xls → 1 mm in dull green microxt pyromorphite
on galena. Also rosasite, linarite,
malachite, cerussite. Vein is of quartz,

w. a little galena (cubo-oct) a little
chalcopyrite, traces tetrahedrite.

BMSN (102) 63 10 (P. Todhunter) wulfenites, on
harmotome.

RSN (105) 46 33 Field notes, T. Bridges. D. Green found
an apatite mixed with ? chlorite.

(TONGUE VEIN) GRAISEDAL E MINES, Patterdale, Westm.

See (RUTHWAITE LODGE VEIN)

? NY 80 07

"HARCLA"

Westmoreland

[? = Hartley Birkett]

See also: HARTLEY BIRKETT; HIGHER
LONGRIGG MINES.

J.G. Goodchild, Tr. Cumb & Westm Assoc Lit. Sci (1881-4)

Cu in Carb Lim. has been wrought
close to Harcla, [near Kirkby Stephen].
Fahlerz or tetrahedrite in veins in l'st, E
of Harcla, with galena, fluor, calcite,
barite, irregular lumps. Some botry. masses
with radiating fibrous structure, in the
haematite mines near Harcla, are referred
to turgite. $\rightarrow$ Aragonite; malachite
[Hey: = hydrohaematite]

RSWB 4/85 A house in Hartley
Birkett village is called "Harcle
Wath"

1" 84

HARDSHINS VEIN & LEVEL, Dufton, Westm.

See TEESIDE MINES

HARTLEY BIRKETT, Kirkby Stephen, Westm.
See also HIGHER LONGRIGG MINES; MARCIA.

AWGK Proc. Min. Soc. (1964) No. 127. Jarosite.

KCD "F" (1952) p 66: Fluorite

WFD & NT (1948) HARTLEY MINE nr. Kirkby Stephen:-
Galena; chalcocopyrite; fluorite, yellowish-
white; baryte; linarite. Tetrahedrite
& azurite recorded [no refs] but not
found by authors. Probably the "azurite"
= linarite. [NO: See Higher Longrigg M's]

1" 83

NY 395 118

HARTSOP HALL MINE, Patterdale, Westm. (I)

See also HIGH HARTSOP M., MYERS HEAD M.

AR, MM 29, 1, (1947): Wulfenite with fluorite & galena.

OS6" map shows "Hartsop Hall" at 398 120₅ and "Old Level (Lead)" nearby, at 394₅ 119

WFD & NT (1948) galena; blende; baryte, incl. cock's comb. Fluorite, yellow xls. Hydrozincite "has been recorded recently" [no refs].

RSWB, TBG. 12/63. IV 48. On dumps: quartz; baryte; galena, incl. small cubo-octah; fluorite, small greyish cubes. Pyromorphite, minute golden xls in tiny bunches on quartz & baryte.

WT Shaw (1970) 75, 92-98 Photo. Ancient. ~30 oz/ton

Elizabethan? Lead is very rich in silver.

Vein NE-SW in Borrowdale Volc. ashes, with numerous quartz strings. Workings for $> \frac{1}{4}$ ml, mostly near surface. Vein ~3 ft quartz & breccia with baryte & argent. galena. Trifling amounts of copper [ore] & blende, latter in deepest workings only. From middle one body small pale straw cubes fluorite & also wulfenite, found by Sir A. R. Traces gold as well as Ag in the galena.

Thomas Vein discov. by my father ~100 ft W of H. Hall Vein, NE-SW in a stream. Qtz, baryte.

HARTSOP HALL MINE, Patterdale, Westm (II)

A copper vein cut in lowest X-cut, strikes E-W - 3ft qtz w a little chalcopyrite. The Pb vein displaces the Cu vein ~ 6 ft horizont. to N.

Ancient smelter $\frac{1}{2}$ ml SW of mine ^{in Hogget Gill area} building stone of which prob. quarried nearby, in which some large pieces of hard white quartz, some containing "a peculiar kind of antimony sulphide" - but none found in nearby quartz vein.

No's 1-4 levels. No 2 @ 900' OD.

Mine reopened 1931 → ~ 1948 after long idleness.

Stanley CJ & Vaughan DJ, MM (1981) 44 257-60
Bournonite & nat. antimony, intergr. in
pol. sections of galena from NY 3960
1200

Rumsey, M (2002) RSN, 40, p 8. Short letter. 1-2 mm
yell-orange xls (barrels) - SEM (Monica Price)
pyrom-mimet "in particular mimetite". On
dumps

sq 78 96

HELL GILL, Mallerstang, Westm.

See HELL GILL, High Abbotside, Yorks

HILTON BEACON MINE, nr. Appleby, Westm.

~~Hil~~ = HILTON MINES, Merton, Westm.

See SCORDALE MINES.

NY, 34 15

HELVELLYN, Patterdale, Westm.

TMH (1868), 70: hr. Sil. Calcite; galena.

OS 6" map shows two old levels to the N of the summit, below Water Crag, at 3395155 and 3401565, and also "Lead Mines" & "Old Levels" nearly 1 mile to WSW of the summit, on the lower slopes, above Thirlmere, in Cumberland, in parish of St John's Castlerigg and Wythburn.

WFD & NT (1948) ^[9v.] On ST. SUNDAY CRAG ^[Not on 2½ in maps]
in the Helvellyn range ~~Westm or Cumb~~
stibnite, small needle-thick veined in qtz strings

1"83

NY 717 320-722 319

HENRAKE HUSH, Milburn, Westm.

See ~~also~~ DUNFELL MINE, ~~DUNFELL HUSH~~

HIGHER LONGRIGG MINES, Kirkby Stephen, Westm. (I)
See also HARTLEY BIRKETT; HARCLA

AWGK Priv Comm (1963): Lead & copper mines, with
colourful banded baryte.

AWGK, Priv. Comm (4/66) ^{→ J R Knight present (witness!)} Superb vanadinite xls; sg descloizite;
superb azurite; v.g. malachite; galena; purple
fluorite. (was he being funny?!) → YES!!!

RSWB (5/66) V, 33-35; (5/69) V, 136.

- ① Quarry at NY 790 084. Working; limestone; no metallic minerals seen.
- ② Old lead mine, around NY 798 089. Baryte; galena;
calcite; fluorite, colourless to purple; quartz;
haematite. No Cu minerals or V minerals seen.

? tetrahed-tennantite [See II]

- (3) Copper mines around NY 798096. Now overgrown shallow excavations & dumps: Much baryte ("cawk"), with good but small azurite xls; malachite, small spherules; calcite; quartz; galena; fluorite; chalcopryite; ? chalcocite.
- (4) Dumps by Birkett Beck, near NY 802082. Much hemimorphite (semi-massive); colourless fluorite; galena; baryte; calcite; quartz.
- (5) Further upstream, near 803-4, 080-1, baryte veins exposed (N-S, approx).

RSWB & D. Hacker. 7/4/85. Examined the Ee mines
Mins as above also green fibrous rosasite (IR);
pale watery green "cuproadamite" ($\text{Cu}_{0.3}\text{Zn}_{0.7}$) on azurite.
[See card II] (IR) ~ no PO_4^{3-}

HIGHER LONGRIGG M's, Kirkby Stephen, W'more (II)

RSWB 7/87. Spec'n of grey sulphide (?tetrahed-
tennantite) assoc w. cuproadamite, sent
(coll'd) by B. Young, analysed by SEM
(Ian Brough) $\rightarrow$ somewhat zincian tennantite
 $(\text{Cu}_{0.84}\text{Zn}_{0.13}\text{Fe}_{0.03})_{12}(\text{As}_{0.77}\text{Sb}_{0.23})_{3.6}\text{S}_{13.1}$

RSWB et al. (2009) J. Russ. Soc. 12, 3-9

The "cuproadamite" is zincolivenite

1" 83

NY 34 or 41

HIGH HARTSOP MINE, Patterdale, Westm.

See also HARTSOP HALL M., MYERS HEAD M.

C.J. Stanley, Pers comm to NJ Fordey et al (Proc Yorks
Geol Soc (1984) [1,2] 59-65. Berthierite at
High Hartsop mine

HIGH STENNERSKEUGH LEV., Ravenstonedale, Westm.

See also CLOUDS MINE.

B. Young (1987) Trans. Leeds Geol. Assoc. 11 [2], 1-7

Dumps have much limestone veined by fluorite ✓ & calcite ✓ with minor galena, chalcopyrite ✓, kennantite (Small, A.T. (1982)

Proc. Yorks. Geol. Soc. 44 153-8), believed from a stockwork ass. w. clouds N. vein. goethite ✓, malachite ✓ common. Small amounts aurichalcite ✓.

HILTON MINES, Murton, Westm.

See SCORDALE MINES

1" 83

NY 388 110

HOGGET GILL, Hartsop, Patterdale, Westm.

BMS N'letter (1999) 53, 10. M. Wirth → BMS coll.

2104: berthierite.

1" 83

NY 708 337

HUNTER'S VEIN MINE, Milburn, Westm.

p 127

KCD (1948) 127: On NE slope of Little Dun Fell.
An opencut, a level at 2250' OD &
communicating shaft. Deposit of
small flats in l'st. with galena,
purple & ^{mm} green fluorite & limonite
A trial adit from Crowdundle
Beck at 2280' OD cut a limonite vein which
may be an extension of Hunter's Vein

1" 84 NY 78 17 (?)
KEY SCAR VEINS, ~~to~~ Musgrave, ~~Wm~~ Westm

KCD (1948) 140 Trials on small veins at
Key Scar, near Hillbeck Wall End, 2 ml
NNW of Brough. Pink baryte, traces of
galena and chalcopryite on dumps.

1" 83

NY 44 12

KIDSTY PIKE, Bampton Common, Westm.

JFN Green MM (1915) 207-17 Almandine x/s
to 5mm, sometimes larger, in many
horizons eg on Kidsty Pike.

1" 83

NY 63 25

KIRKBY THORE, Westm. (I)M/c Mus. Stellate gypsum in massive. (cf Long Marton)WFD & NT (1948) NEW STAMP HILL MINE - Gypsum,
massive, satin-spar, & a foot thick band
with pink bladed xlsOS 1" map shows "Mine", at NY 654 256, just S
of Stamp HillRSWB, Richard Lamb 21/3/82 Mine at Birks
Head open; no dumps visible from road
Mine at 654 256 S of Stamp Hill visible

e open.

From big dumps at plant, near
648 264, much white gypsum
var. "satin spar"; much massive
gypsum; grey massive ?anhydrite;
a little "daisy" xline gypsum blades
in massive, some orange-pink
with ?haematite inclusions. A few
samples pale brownish-pink "daisy"
gypsum ~~blades~~ ^{contain} scattered ~~color~~ ^{euhedral} pale
orange rhombs siderite (IR; has Fe^{2+}) 2-3 mm;
A few specs orange gypsum have
bands of nodules $\rightarrow$ 4 mm of platy
radiating spec. haematite

KIRKBY THORE, Westm. (II)

B.R. Young et al J. Russell Soc (1985) 1(3), 92-3.
Therardite, thaumasite from
gypsum workings.

SD 4215941₃

KNIFE TARN MINE, Winsler, Westm.

RBJ Yuen, Priv. Comm, 2/69 At Stile Brow, at
above map ref. Baryte gangue.
[Specimens seen by RSWB - baryte,
some thin xls. Traces chalcocite
spots.] Also run in drift at
423 9355

1184

NY 7335 307

KNOCK COAL MINE, Long Marton, Westm.

1" 83

NY 710 305
Westmoreland.
~~lines~~

KNOCK ORE GILL, Long Marston,

KCD(1948) 132 An ENE vein with baryte
2⁺ ft wide, near B.M. 1922.0, in Knock Ore Gill.
Three small baryte-galena-limonite veins
cut across The Heights, to the NE.

OS 2¹/₂" map shows "Old Level" at 710 305; "The
Heights, around 720 306.

1" 82, 83, 88, 89

~ NY 3 0

LANGDALE, Westm (Cumbria)

Max M Wirth (1991) MM spec → RSWB; 91-38.

Anatase crystals in quartz, from
a fissure filling in SPOUT CRAG Q'y
(for slate) at NY 308 052, with
calcite/ankerite, some very small
apatite xls ("the multi-faceted, golf-ball
type") [i.e. ? hydroxy apatite, cf. Prenteg
material].

An older quarry slightly higher
up the hill is COLT HOUSE Q'y with
fairly abundant brookite & rutile

D Green (1997) MM's $\rightarrow$ R₅₀B ^{good dark blue} Anatase etc on ~~slr~~
qtz xls - some with a good "wormy" xline chlorite

1" 84

NY 787 303

LODGE GILL SKE VEIN, Dufton, Westm.

KCD(1948) 287 1½ ml W of Cow Green mine, 2
short levels on an E-W vein in Lodgegill
Sike. On dump from upper level,
baryte, with limonite & traces galena

1" 84

NY 767 196

LONG FELL MINE, Warcop, Westm.

KCD (1948), 59, 138, 343. Ba. On summit
of Long Fell, $2\frac{1}{4}$ ml ESE of Hilton. Veins
of nearly pure baryte, with traces of
aragonite & occas. malachite stains.
Virgin in 1914, then worked 'till 1924. Then
from 1939 → Road now from Hilton

KCD "N-F" (1959) 139 Closed in 1948 partly "owing
to the difficulty of operating on an

artillery range". Baryte

WFD & NT (1948) Baryte, mainly semi x-line
but some nice xls. Selenite [Gypsum]
nice but smallish xls. Fluorite,
mauve xls, sparingly in earlier
workings

T Bridges & B Young (1998). Gypsum (WFD & NT)

1" 83

NY 66 24

LONG MARTON, Westm.

RSWB, TG. 17/3/62. Vol II, p. 20. White mine dump at
667 257, near Birks Head, on Marton Moor, has
brown to red stellate gypsum var. selenite, in
finer matrix, small greyish poorly defined
gypsum & porphyritic in fine matrix; some
white → orange satin spar. II, 112 (16/8/62):
grey massive anhydrite
This is BIRKS HEAD MINE.

WFD & NT (1948) BIRKS MINE, has anhydrite and
gypsum.

RSWB, Richard Lamb, 21/3/82 Open - some
huts, no dumps visible from road.
Big dumps near Kirkby Thore [g.v.] visited.

Also 10/2/68 (II, 103)

Around NY 5003

LONG SLEDDALE,

Westm.

See also STAVELEY.

RBJ Yuen, Priv Comm. 2/bg.: 184th Cent. Ce trial
- site not yet found.

OS 6" map: NY 722 323

'LOPPYSIDE' MINE, Milburn, Westm.

= LOPPYSIDE LEVEL q.v.

~~SAN DAN FEEL MINE~~

1"83

NY 722 323

LOPPYSIKE LEVEL, Milburn, Westm'd'd.

See also DUN FELL MINE

KCD(1948) 131. Ba, Pb, Fe. Loppysike vein
explored from LOPPYSIKE LEVEL, mouth 1550'
N of Dun Fell Low Level - runs WNW, reaching
vein at 550' - drift on vein only 150' long.
On dump: Baryte, witherite, limonite,
small amounts galena.

B. Young (1985) PYGS 45 199-206. LOPPYSIKE
MINE, at 722 323, has minor witherite.

LORDS LEVEL, Milburn, Westm.

See SWATHBECK MINE

LOWFIELD VEIN & HUSH, Merton, Westm.

See also SCORDALE MINES, etc

Postlethwaite (1913) 1403. Lowfield Hush Mine. "Hush" trench made one back of vein & laid bare large deposits of baryte & a consid. quant. of galena. Excav. like a large railway cutting.

KCD (1948) 138 Lowfield V, on NW side of Scordale, below Scordale mines, $1\frac{1}{2}$ ml ENE of Hilton. Lowfield Hush, on the vein, in a 700' E-W open cut with much drifted material also sandstone replaced by galena, baryte, amber fluorite

LOW HARTSOP MINE, Patterdale, Westm.

See MYER(S) HEAD MINE

MASON HOLES, Murton, Westm.

See SCORDALE MINES

1" 84

NY 78 18

MIDDLE FELL VEINS, Warcop, Westm.

KCD (1948) 140. Baryte veins on top of
Middle Fell, with a little galena.
Shallow workings, 3 shafts, and a
trial.

MOSS SHOP, Dufton, Westm.

See BIRKDALE FARM VEINS

MURTON MINES, Murton, Westm.

See SCORDALE MINES

MYER(S) HEAD MINE

1" 83

Patterdale

N4

415127

Westm

~~Wm~~

(I)

See also DOD END MINE, HIGH HARTSOP M

Postlethwaite (1913) 127

Threshthwaite Mouth glen.

30 fm shaft.

At the entrance to

Adib, and a

Lead ore

MYER HEAD M.

W.T Shaw (1970) 98-100 MYERS HEAD or

LOW HARTSOP M. History, description runs ~ SSE

Vein SSE along Pasture Beck from junct.
with Hayeswater gill. Runs NNE-SSW [?],

of stone & quartz, split to S into 2
branches traced from shallow levels @
700' OD.

Shaft oppos. Hayeswater gill
[ie at ~ 415127]. Vein shows calcite about

a mile upstream [ie near 42² 114]. Dump

of E level has galena in quartz.

30 fm level, late 19th cent., X cut E to
main vein.

X cut into hill 400 yds NW
of the shaft at ~620' OD.

Galena, sphalerite, a little chalcopyrite

Stanley CJ & Vaughan DJ, MM (1981) 44 257-60

Bournonite & nat. antimony intergr. in
pol. sections of galena from NY 4155 1275

Rothwell & Mason (1992) UK JMM 11 30-40. Wulfenite
small yell acute pyram & tab. xls with
hemimorphite [Wirth, 1988; XRD]

M. Wirth; BMSN (1998) 51, 13. BMScol 2036. Pyromorphite

MYER(S) HEAD M., Patterdale, Westm. (II)

M. Wirth, BMSN (1988) 23 9-11. B. Young's Lake Dist
glossary (1987) mentions antimony, bournonite
& sphalerite. Pb mine on OS map at 412128
not visible. At 411126 anglesite in galena;
one azurite; aurichalcite; leadhillite hex plates;
sphal, ceruss, pyrom, hemim, malachite.
At 415126 barite, sphal, hemim common,
ceruss, linarite, ? langite or wroewolffite;
galena, pyrom, mal, aurich, rosasite,
wulfenite MM.
At 417126 small dump; pyrom, angles, ceruss,
mal, gal, goeth, sphal, linar ch'pyr,
aurichalc, hemim, "but none worth keeping"

1" 84 NY 758 330 - 765 325

NETHER HEARTH VEINS, Dufton, Westm.

KCD (1948) 277. Complex of small crisscrossing veins near Nether Heath & Moor House. worked by ?shallow shafts, with galena, sphalerite, purple & amber fluonite, quartz, limonite. X-cut level from St. Dodgen Pot Sike 2400' E of Moor House (old Sun Level). At head of this sike 1100' S of old Sun level, a

[765 328]

short level to a limonite NE vein
[at 765 325]

NEW STAMP HILL MINE, Kirkby Thore, Westm.

See KIRKBY THORE

OLD SILVER HUSH, Milburn, Westm.

See also SILVERBAND MINE

OS 6" map: Just to the ENE of Silverband Mine
Is the old opencut part of Silverband mine.
[qv]

OLD SUN LEVEL, Duffon, Westm.

See NETHER HEARTH VEINS

1" 83

NY 64 09 ?
62 09

ORTON SCAR, Orton, Westm.

WFD & NT (1948)

Milky botry. chalcedony
common in the l'stone "6409"

D. Hacker, Priv. Comm., 1982. Spec 82-123

Vugs in limestone of Orton Scar,
near motorway, lined with
pink xls dolomite with fluorite,
calcite, chalcopyrite. Quarry is at
NY 598 093

Proc. Cumb. Geol. Soc. (1979-81) 4 [2] 138-9
"Palaeozoic Rocks of The Orton Area" (Field
excursion, leader R.V. Davis). Small aband.
quarry on B 6261 road nr. Orton has
fossils; dolomitisation with calcite and
dolomite crystals within the same
cavity. [1" OS map:- B6261 is
the road running ~ NW → SE through
Orton, so does not pass near 6209.]

1" 84 NY 738 319
739 323

OVER HEARTH LEVEL, Milburn, Westm.

KCD (1948), 278. Pb. On Dun Fell V.
Starts on S bank of Trout Beck between
Ninewells Sike & Moss Burn. ^{739 323?} Runs S by W,
reaching vein 2575' from portal. Also,
ventilated by shallower level, at 2040' OD,
(higher) (NY 738 319). On dumps:
siderite; ankerite; small amounts
yellow fluorite; limonite; lead ore
[Should be baryte, too - RSWB]

PATTERDALE, Ambleside, Westmoreland.

See also GRISEDALE M's; MYER HEAD M; HARTSOP HALL M; GREENSIDE M
SAINT SUNDAY CRAG

TMH(1868), 70: Lr. Sil. (Ag-Pb mines). Baryte; calcite;
cerussite.

PROVIDENCE MINE, Grasmere, Westm

See TONGUE GILL

PROVIDENCE (=TROUTBECK FOOT) VEIN, Dufton,
Westm.

See TEESIDE MINES

1" 88

NY 26 03

RED TARN Langdales Westm.

or Helvellyn NY 34 15 ? [Brown Cove M]

~~of BROWN COVE M~~

WFD & NT (1948) Haematite - "Red Tarn mine"

1" 83

REMMINGTON'S VEINS, Milburn, Westm

See also DUN FELL M, HUSH; SILVERBAND M

B. Young et al (1996), J. Russ Soc. 6 [2] 97

The "psilomelane" from REMMINGTON'S
V's on GREAT DUN FELL (the only
recorded N. Pennine occurr. of "psilomelane"),
on XR powder diff. is romanëchite.

[see SILVERBAND M]

T. Bridges & B. Young (1998) JRS. Pyrolexite traces
on the romanëchite.

RIGG HEAD Westm/Cumb?

W.T. Shaw Coll. at "Grove House Gallery" Keswick (1984)
has azurite from "trial adit, Rigg
Head".

Prob = Rigghead Q, Borrowdale, Cumb.

RUTHWAITE LODGE VEIN, Patterdale, Westm.

See under GRISEDALE MINES

1" NY 3613-3713
SAINT SUNDAY CRAG, Patterdale, Westm.

TGPZ, Priv. comm. 2/72 Said to be
stibnite, galena, on St. Sunday Crag

WFD ENT (1948). On St Sunday Crag, in
the Helvellyn range, Stibnite, small
needle-thick veinlets in quartz strings.

WT Shaw (1970) 90-91. X-cut driven into base
of St Sunday Crag at ~850 ft OD ¼ ml E
of Grizedale beck ["Old level (Pb)"] of OS 6" map
at 365 143

fair sized dump indicates longish
level, but no minerals seen.

Nr end of 19th Cent two Watson bros.
said to have found a rich galena
vein at surface on the Crag but
could not locate it later!

1" 84

Around NY 763 227

SCORDALE MINES, Murton, Westm. (I)

7622

"Scordale mines" is a collective term for HILTON + MURTON MINES, and may include AMBER HILL V's [qv], LOWFIELD VEIN & HUSH [qv], WHITE MINES [qv]

KCD (Priv Comm → B. Young) A Russell found aurichalcite
MM (1947) 28 248 Excursion - amber fluorite

MM (1884) 6 52 "Helton Beacon mine, near Appleby"
 where siderite has been changed to
 black glossy xls of goethite.

KCD (1952) 66 Fluorite

Rayners Cat. (1960) Baryte; calcite; fluorite,
amber and colourless

Postlethwaite (1913), 139, 140.

HILTON MINES: Low Level, arched with stone in "a most substantial manner" for 150 fms. Total length 300 fms, & has opened up ore ground ca 190 fms long. Wilson's Level, 14 fms above Low Level, driven 120 fms. Higher up, two more levels, 22 & 54 fms above Wilson's Level. Lower driven 42 fms, upper 75 fms. On same vein as Murton mine, and only separated from it by a narrow ravine. ~~then~~ MURTON MINES: workings

SCORDALE MINES, Murton, Westm. (II)

probably more extensive than Hilton mines.
Both have yielded plenty of galena

AWGK, Riv Comm. ca 1963 Dow Scar Level best
loc. for fluorite & baryte specimens.

BM spec. 1910, 411: Light brown nodular
with baryte inside & outside nodule

KCD (1948) 114, 135. MAP, p136 (very good).

p114: Secondary gypsum at Hilton mines,

in limonite near pyrite undergoing oxid'n.
pp 135-138: Worked Murton Fell N. Vein, Murton
Fell 2nd N.V., Mason Holes V (Bellas V), South V,
Middle V, Dowscar V. The master vein
is the N. Vein worked continuously for
ca 1½ ml from White mines [qv] to Murton
mines [around 761 227] on NW side of Scordale,
and Hilton mines [around 763 228] on SE side
of Scordale.

MURTON MINES: The levels overlap White
mines. Lowest = HARDSIDE LOW L. (now inaccessible)
starting 400' E of confluence of Gt Angell &
Scordale Becks, at 1299' OD. Runs NW as X-cut
to N. Vein at 260', then runs on this vein

SCORDALE MINES, Murton, Westm. (III)

The HORSE L. starts 800' WSW of Low L., as NW X-cut in sandstone, to the vein at 180', then W on vein for 4125'. JOHN'S L. starts 1750' WSW of Low L., goes 1700' E, with rises to 70' above level - surface shaft dumps have galena in limonitised limestone.

WHARTON'S L. HARSHINS L. connects with the extensive belt of flats assoc. with Mason's Hole vein (MASON'S HOLE ~~and~~ 759 223 is an ancient opencast 1000' long from which lead ore presumably obtained) These flat

60-120' wide, worked for 850', are 4-6' thick
with many cavities, and have amber
fluorite, quartz, galena, white opaque
baryte. Access to the flats was by
the levels but one brought out by
rises to a branch of Hardside Low L.
From CURLY L, 400' SW of Low L. a X-cut
continues beyond flats to N vein where
there is a flat called "Carbonate Shake"
from which witherite has been mined.
Flats assoc with this vein also proved
from a series of small levels W of Low L.
HILTON MINES, on E of valley, worked

SCORDALE MINES, Murton, Westm. (IV)

continuations of these veins, and other veins to the S, with extensive ^{min.} flats.

Mineralisation as Murton mines, but less quartz & more baryte, in large white xls enclosing amber fluorite xls.

North Vein tested at 6 levels: HORSE L. at 1250' OD on W side of beck; WINSON'S LOW L., 1326' OD
A short level at 1396' OD giving access to flats ^{↳ to steps} extending 750', 18' wide, up to 8' thick; A level at 1472' OD to poor staped ground; JACQUES L., at 1670' OD to a stope. BROWN'S L.,

a X-cut from Little Augill at 1700' OD, nothing found.
Along the smaller V's to the S, ramifying
flats 2-6' thick at top of Melmerby Scar Lst.
[Reached from Dew Scar High Level, & Middle Level ??
See map].

WFD & NT (1948) HILTON MINE:- Only safely
accessible by one level. Galena moderate
sized xls. Numerous vugs with finely
x-bed baryte, & fluorite, yellow or colourless.
Cerussite; chalcopyrite; malachite;
witherite as nodules on old dumps.
Pyrite as zoned inclusions in the fluorite

SCORDALE MINES, MURTON, Westm. (V)

RSWB, PT. 31/10/70-1/11/70; V

Dow Scar

High level explored. Fluorite clear xls, some amber with thin purple zones, grading to colourless - all blue fluorescent (uv, LW). Baryte, white sheafy, with occas. clear Silverband-ish xls. in vughs.

Galena common, rarely xls. Chalcopyrite; some quartz; aurichalcite, with smithsonite in Rutland Cavern-ish pearly xls on colourless fluorite xls with white sheafy baryte and

inclusions
in fluorite

disseminated: sphalerite & galena,
& some limonite, also rosasite (1R)

TGPZ, Priv Comm 11/73 Plenty white to
green-streaked dripstone coatings in
WILSONS LEVEL stops ca 100' below flats
of Hilton Mines. Spec's $\rightarrow$ RSWB. = Hydrozincite

N. Hubbard, Priv. Comm. 4/82. In main (gated)
level (? Dow Scar High Level), green stains
 $\sim$ 100 yds in contain annakergite,
lead to niccolite with coatings

SCORDALE MINES, Murton, Westm (VI)

gersdorffite; also millerite in
cavities.

BV Cooper, Priv Comm 6/1/82. Chris
Procter (geol stud., Leeds Univ.) found a
greyish mineral at Hilton mines
assoc. w. galena. Dr. H. Horning of
Leeds ident. it by XRD as cobaltiferous
gersdorffite.

MA 82M/3730 T.F. Bridges, J. Russell Soc. (1982) 1, 33-9.

A few kg of Ni minerals in a deposit in
Hilton M. Mostly niccolite, gersdorffite
and millerite, with sec'y annabergite.
Paragenesis. (Dow Scar High Level).

Amorph
CdS
(HILTON)

B. Young (1985) PYGS 45 199-206 Witkewitz -
MURTON M's, 761 226

B. Young, Priv. Comm (7/88) good crystals
annabergite found! in cavities
& encrustations - Pyromorphite (M. Wirth, pers.) HILTON
Gyp Sulf. HILTON

T. Bridges & B. Young (1998) J. Russ S. Murchalcaite
HILTON M. (A. Russell in Dunham, 1948). Tiny xls
matachite (HILTON, WFDENT 1951); chrysocolla (MURTON M.
H. Wilkinson pers. comm), the annabergite; erythrite minute crystals
HILTON CO Thompson, Pers. comm 1990

rounded white xls & 3-6 sided prisms
to 1.5 mm. On other specimens, "new"

are anglesite, calcite, hydrozincite,
rosasite, "limonite" [goethite]

RSWB et al (2009) J. Russ. Soc. 12, 3-9 Adamite
of ideal end-member composition, white to
pale yellow corroded subhedral xls $\rightarrow$ 0.5 mm
rare. Prob = 1st definite British report!
Spec in M/C Mus, N 18020

1" 83

NY 50, 51

SHAP, Westmoreland

See also ~~SHAP~~ GRANITE QUARRY; BLUESTONE QUARRY, WASDALE
HEAD Fm

TMH (1868), 70: granite, Lr. Sil, & Mtn. Lim. Felspar;
molybdenite.

Rayners' Cat. (1960). Haematite; andradite; nacrite

SHAP (= PINK)

GRANITE Q., Shap, Westm. (III)

RSN (2001) 39 19 D. green. Molybdenite, bismuthinite,
anatase, brookite, rutile, scheelite, purp fluor,
beyerite, wulf, pyrom, ceruss, angles; milarite,
bertrandite, bavenite; native bismuth (XRD),
cosalite (XRD); gladite (XRD); much of the
weathered hex white prismatic is bastnäsite,
appears to have ~~been~~ altered from red prismatic synchysite

M. Wirth, D. Green & G. Ryback (2001) J. Russ. Soc. 7 [2] 90-91
Milarite, class transp prism. to 2 mm in microlytic
cav. in coarse adamellite. Checked XRD. Some
enclosed in later carbonate (e. fizzed out w. HCl).

BMSColl 2268 (M. Wirth)
allanite (No 2269)

Synchysite-(Ce), also

RSN('03)42, 25. Visit.

Reg cavs in lowest
part - qtz, feldspar xls, calcite + TiO₂ min's.
Highest bench rich in microlytic cavs
Anat-brookite-rutile; abund epidote, moly
titanite, fluor; allanite, bavenite,
scheelite, wulfenite, apatite or poss
milnarite

RSN('04)45, 47. Visit.

Molybdenite common - a large
piece found. "Red anatase xls" [?] reported.
Massive sphalerite & galena

SHAP (= PINK)

GRANITE QUARRY, Shap, Westm (II)

M. Wirth (1995) J. Russ. Soc. 6 [1], 51

"Bavenite from Shap granite quarry,
Cumbria, England"

In cavity, on pink feldspar, bavenite
(photo). ✓ Mica, pyrite; minute cl'ss
apatite xls; titanite, scheelite, epidote,
calcite.

T. Neall, priv comm (1998) Some of the
"bismuthinite" is

confirmed BMSW (2000) 55, 10

BMS News (1999) 52, 6. BMS coll pres M. Wirth: galena;
~~synchysite~~; ? xenotime = zircon (55, 10)

M. Wirth (1999) BMSG Newsl 52. 9. Ferrimolybdate
straw-coloured needles, (ident chem - Mo
blue on diss in dil HCl & evap)

BMSN (2000) 55, 10. M. Wirth → coll. 2181 "Beryl" [= milarite !!]; M. Leppington, 2186, actinolite.

M. Wirth, BMSN (1988) ~~20~~ 23, 11-13. Beaut anatase;
chlorite, calcite, molybd, pyrite, bismuthinite,
albite, oclase, brookite, qtz, apatite, fluorite,
titanite ("sphene"), scheelite; talc or naacrite??
[not indexed]

BMSN (01) 59, 6. M. Leppington → coll 2260 wulfenite transp
yellow sharp bipyr. on granite.

SHAP (= PINK)

1" 83 Centon NY 556 084

GRANITE QUARRY, Shap, Westml. (I)

See also SHAP; BLUESTONE Q; WASDALE HEAD Fm.

AR, MM 20, 299 (19): Bismuthinite.

AWGK. Molybdenite; pyrite; bismuthinite;
• sometimes green & purple fluorite.

WFD & NT (1948) Pyrite occas. in fine xls.,
quartz, felspar & mica common in
detached xls. in cavities. Molybdenite,
& bismuthinite frequent, "not in xls". Fluorite
including tiny emerald green octahedra
with calcite, coll. WFD (1950)

BMS Newell (1977) 468. BMS Coll. Haematite, pres M. Wirth

N. Hubbard Riv. Comm 4/82. Nice micro
x/s anatase (bipy.) & brookite  both
nearly black, in vughs; also apatite

"The Lake District" (1982) (Cumb. Geol. Soc) 15-20. Field
excursion notes. Orthoclase phenocrs.,
quartz, pyrite, chalcopryte, baryte, fluorite,
molybdenite

Firman RJ (1953) "Metam. & m'som..." PhD Thesis U of Dur., also
Freeman FJB (1982) "The geol... Force Crag..." MSc Thesis Camborne Sch. Mts
ref in B. Young et al (1986) PMS 46 15-21. Traces
Scheelite in drusy cavities in Shap granite
BMS News (1996) 45 12 Covellite on chalcopry.

SHAP BLUE QUARRY, Shap, Westml.

See BLUESTONE QUARRY.

1" 84

~~Mass~~ NY 83019

SHOT MOSS, Stainmore, Westm.

RSWB, TBG, JRK, 5/64. IV, 115 Exposures of
white platy baryte, partly intergrown
with limonitic material, & worked, by
roadside near NY 830198

Milburn, 1883 NY 703 318
SILVERBAND MINE, (nr Duffton) Westmoreland. (I) 6932

See also OLD SILVER HUSH; DUFFTON; DUN FELL M.; SWATHBECK M.
REMMINGTON'S VEINS

J. Sweet MM 22, 257, (1930): Baryte

Dana, p. 903. Baryte, large transparent crystals at the Duffton & Silverband Lead Mines, sometimes gigantic. Some were found lying in the mud at the bottom of a cavern, and one weighed 100 lbs!!!

TMH (1868), 70: Pb mine. Aragonite; baryte; galena.

Laporte owns this mine (1961) & runs it for baryte.
Howie says Davidson (of Renwith) still gets good specimens of baryte xls "from the miners"

Rayners Cat (1960) Baryte

MM 28 248 (1944) Excursion.

Dunham, N. Lenn. I. (1948) 128 ft.

RSWBG TG 17/3/62 Field Reps II pp 17-20, Photos p 24-25.
good baryte xls esp in limonitic matrix, from
clumps, and as plates in clay from High Level.
Some calcite, including fibrous calcite looking
like witherite (Tested SG, x-ray etc!).

II, III-112, 124: Also galena; small amounts cerussite & anglesite
KCD N-F (1959) 137. being worked by Laporte for baryte.
"Reserves are considerable"

SILVERBAND MINE, Milburn, Westm. (II)

KCD (1948), 29, 83, 99, 102, 110, 112, 128, 343 (Ba, Pb).

p 111 spectacular post-mineralisation caverns.

p 112 MAP.

pp 128-131 Description. Veins worked: Dun Fell;
Rowpotts (Ruperts); Remington's North (Deed);
Remington's South; Henrake (? Heinrich); Slope;
Loppysike V. Dun Fell V is master vein.
W'most workings are in Middle Tonge Beck,
near [692321] where old opencut has
baryte, galena. 1250' to E [697321] Gilbert's

Level at 1838' OD runs S, reaching the vein at 290'—here limonite with a little baryte. Rowpotts vein appears in the bed of the creek near here & the complex runs E, with bushes on both veins, showing baryte & limonite. Burns Level on Dunfell V. at 2033' OD recently reopened but has encountered difficult ground. Under Gr Dun fell a series of ENE veins branch off, with extensive replacement deposits around & between them, of baryte, almost free from sulphides. The veins themselves

SILVERBAND MINE, Milburn, Westm(III)

are essentially similar - coarse white baryte with strings of galena, and minor sphalerite, calcite, aragonite.

These deposits worked from Silverband Low Level, at 2286' OD, & driven early last cent [at 703 318], also Silverband High Level, at 2384' OD [at 705 318] on Dun Fell Vein, which runs E 2800', reaching Dun Fell Hush.

WFD & NT (1948) Galena; baryte, fine large xls, mostly yellowish-white, but in 1950, [sic]

extraordinary xls met in a small vein
connecting Dunfell & Henrake veins - The
xls have grown successively in 2 or 3 different
directions, in distinct phases, with alteration in
habit - orig. colourless, then yellow & blue
zones, then colourless edge. The yellow zone is
fluorescent in UV - cream with pinkish tinge.
The occurrence is described in detail in Min Mag.
Banded brownish witherite, & rarely fluorite,
in old workings. Aragonite - columnar,
stalact, arborescent, etc. Calcite not common,
nail-head, & an orange form with a strong ^{sulphur-}yellow
fluoresc. in UV. Impure haematite; goethite as a
pink powder [?!]; botry. "psilomelane". Hollow limonite
pseudomorphs after pyrite $\nwarrow$ [v. infra]

SILVERBAND MINE, Milburn, Wostm.

(IV)

(5) KCD, 1990

B. Young et al (1996) J. Russ Soc. 6 [2], 97

The "psilomelane" from REMINGTON'S
VEINS on XRD turns out to be
romanechite

T. Bridggs & B. Young (1998) goethite, xline mamil.,
e "limonite" ϕ -after pyrite. Haematite
may be present (WFT & NT, 1951). Pyrolusite
like "soft coke", up to 20 cm thick (Orchard,
1921, Trans Inst Min'g Eng's 51 42-45), also traces
on romanechite from REMINGTON'S V.
Small amt pyromorphite.

SPOUT CRAG SLATE Q'y, Langdale, Westm.

See LANGDALE

1" 84

NY 745 296

STAKE BECK MINE, Dufton, Westm

KCD (1948) 311 Remote, at head of Stake Beck,
4 mi ENE of Dufton. Line of shafts E-W for
1,100 ft. workings in sandstone.
Witherite is the principal mineral on
the small dumps, with a little galena &
baryte.

B. Young (1985) PYGS 45 199-206 ~~NO DATA~~
STAKE BECK M., at NY 746 296 has major
witherrite & major barytocalcite.

1" 89

SD 49 NY 40

STAVELEY, Kendal, Westm.

~~See also~~ STAVELEY HEAD MINE; BORWICK FOLD MINE; FROST HOLE;
LONG SLEDDALE;

TMH (1868), 70: Up. Sil. Malachite.

NY 40 458017 →
466013

STAVELEY HEAD MINE, Over Staveley, Westm.

See also STAVELEY.

OS 2½" NY40 shows lead mine at above map ref.

RBJYuen (Priv comm, 2 specimens seen by RSWB) 2/69:
Quartz gangue. Pyrite, Galena with
cerussite.

BMS News (1997) 46 8 Malachite from
"MILHRIGG KNOT, Kentmere, Cumb." BMS coll,
pres. M. Wirth.

STONEYMEAD SIKE, Dufton, Westm.

See BIRKDALE FARM VEINS

STENNERSKEUGH CLOUDS M., Westm.

See CLOUDS MINE

SWATHBECK MINE, Milburn, Westm.

p 127

KCD (1948) 127: $\frac{1}{2}$ ml E of ^{Little} Dun Fell summit. A
rush & a level 1925' long, of which
the first 225' is a x-cut. galena,
fluorite limonite.

The vein has been traced on the W
side of the escarpment by Lords Level
from Middle Tongue Beck (no vein stuff on
dump) & by a long x-cut through
a series of nat. caverns, from Silverband
mine [qv]

T. Bridges & B. Young (1998) J. Russ S. Hemimorphite
small c'less → brown radiating.

1" 84

Around NY 7634

TEESIDE MINES, Dufton, Westm.

KCD (1948) 277 HARDSHIN'S V. crosses Tees 1300'
WNW of junct. w. Trout Beck. Line of old
shafts to SW. Hardshins level - x-cut to W
from portal at 1745' OD [758 339?]. Dumps
have galena, sphalerite, quartz,
ankerite, purple fluorite. TROUT BECK
LEVEL, from T. Beck 3600' SW of the Tees
[7505 332] is x-cut to the vein at 1150'. Not

productive. X cuts to N discov. no veins.

TROUTBECK FOOT (= PROVIDENCE) VEIN crosses Tees
close to Trout Beck junct. productive
for only ca 800' to SW

T Bridges & B. Young (1998) JRS. Amorph cadmium
sulphide, bright yell coatings, HARDSHINS
LEVEL, NY 7579 3388

1"83

NY 719 280?

THRELKELD SIDE MINE, Dufton, Westmld.
See also DUFTON FELL MINE

KCD (1948), 133. Ba, Pb. On NW side of
Rundale Beck, 3ml NE of Dufton.

Main adit, ca 1500' OD an unsuccessful
exploration - no galena, very little baryte -
in the Melmerby Scar Lst. Only success
was in the Smiddy Lst, where small flats gave
baryte. [Above Mel. Scar Lst].

1"83 NY 34 10

TONGUE GILL, Grasmere Common, Grasmere, Westm.

GR's 1" map shows "Iron Ore" here at 34x10y

WFD & NT (1948) Haematite

W.T. Shaw (1970) 101-102 2 ancient iron
mines on a NW-SE haematite vein
in Borrowdale Volcanics. Reopened
early 17th Cent., both working 1874.

FAIRFIELD MINE. To E. 2 levels to SE,
long closed in; village water supply
from lower level.

PROVIDENCE MINE, in Little Tongue Gill

(W fork) near Old Packhorse Road. 3
levels into vein - said to be up to 16 ft
of solid haematite.

TONGUE VEIN, Patterdale, Westm.

See GRISEDAL MINE (Ruthwaite Lodge Vein).

TROUTBECK LEVEL, Dufton, Westm.
also TROUTBECK FOOT (PROVIDENCE) VEIN.
See TEESIDE MINES

1" 83

NY 31, 32, 41, 42

ULLSWATER, Westm.

TMH (1868), 70. "Banks of ullswater," in Lr. S. C. Dolomite.

1" 83

NY 550 081

WASDALE HEAD FARM, Shap, Westm.

AWGK. In exposure in bank on RHS of stream,
15 yds beyond farm: mucky green idocrase

The Lake District (1982), 19. At 549081, ~100m
beyond the farm, series of small crag
exposures w. grey & pink flow-banded rhyolites
above grey-white granular therm. metam'd
Conistone Limestones.

SD 448 8715

WHITBARROW SCAR, Crosthwaite, Westm.

RBS Yuen, Priv. Comm., 2/69. Old trial of 1750's
at above map ref. gangue of
fluorescent calcite (yellow [mustard] under
UV(LW) - v. short afterglow), with haematite

1"84

NY 744 226.

WHITE MINES, Murton, Westm.

See also SCORDALE MINES, etc.

Dunham (1948), 135. On Murton Fell North Vein. In Gasdale, $1\frac{1}{2}$ mi N of Hilton.

Lowest lev. in black shale & dark shaly limes @ 1279 ft OD — goes 500 ft — A little pink baryte in the vein. Near the forehead a rise up 134 ft 6 in communic. w. the White Mines Top Level at 1414 ft OD near mouth, this runs 950 ft E, in Melm. Scar Limest. Also an intermed. lev. A xcut from Top L. proved the Murton Fell Second N. Vein worked 1300 ft to ENE. No stop sections of White Mines remain but some galena in baryte matrix on both V's in the Limest. In the Smiddy Limestone opencast wkgs suggest good qual baryte present,

WILD BOAR FELL, Mallerstang, e Ravenstonedale,
See also CLOUDS MINE Westm.

Geol of Mallerston (1891) 16th (Coll. in "N. Riding") Copper
trials under Wild Boar Fell.

OS 2½" x 6" maps show "Old lead mines" at 736994; and
 "Old shafts" at 743,002, ^{near 737,994} ~~near 738,992~~, and
 near 772 967; also "Old Hushes" at
 772967 and 772969 → in Far Cote Gill
 (grassed over - RSWB) → in Near Cote Gill

"WILLOW CRAG" Westm.

See WALLA CRAG, Keswick, Cumb.

1" 83

NY 47 08

WRENGILL, Longsleddale, Westm.

OS 2½" map shows "Mine, disused" at
471 083, above Wrengill Quarry
around 474 084.