Site Name	County	Sheet No. 6 inch	Sheet No. 1:50,000	ITM Easting	ITM Northing	Principal characteristics Critical feature(s) key words	Townland(s)/district	Ex-ASI site?	Summary description	Definite CGS	NHA?	Definite NHA	Key references	IGH Theme - Primary	IGH Theme - Secondary	IGH Theme- Tertiary
Blackwater Valley	Cavan	43, 44	35	663660E	782360N	Pitted sandur	Ballaghdorragh, Ryefield, Edenburt, Lisduff, Stramatt, Carraghkeelty More, Knocknagartan, Corronagh / Virginia	No	This is one of the best examples of a pitted sandur in Ireland. Pitted sandur features are hummocky outwash plains, formed either because blocks of dead ice melted out from under the meltwater sediments after they were deposited, or because a large-scale, instantaneous meltwater flood occurred.	CGS				IGH7 Quaternary		
Bruse Hill	Cavan	44	35	664471E	784020N	Crag and tail feature	Carrigabruse, Bruse, Carrakeelty, Carrigasimon, Enagh, Fartagh / Virginia	#4 Ecological	This is one of the few discrete examples of a crag and tail ridge throughout the drumlin belt, where composite crag-and-tail features are more common. Probably the finest discrete crag-and-tail within the entire drumlin belt.	CGS			MEEHAN, R.T., 2000. Kells and adjacent areas, County Meath Ireland. Glacial Landsystems Working Group Field Guide, Teagasc, Dublin, 70pp. MEEHAN, R.T., 2000. Evidence for several ice marginal positions in east central Ireland, and their relationship to the Drumlin Readvance Theory. In Ehlers, J. (Editor) "Extent and Chronology of Worldwide Glaciation", INQUA Commission on Glaciation, Work Group 5, Special Publication, p. 6-12. MEEHAN, R.T. and WARREN, W.P., 1999. The Boyne Valley in the Ice Age. Geological Survey of Ireland, Dublin, 84pp.	IGH7 Quaternary		
Bruse Hill Quarry	Cavan	24	34	631466	798476	Coronea Formation, Tract 2 of Longford - Down inlier	Bruse / Arvagh	No	These rocks are representative of one of two formations comprising a major Tract (numbered 2 by geologists) of rocks in the Northern Belt of the Longford – Down inlier (extending and correlating with the Southern Uplands of Scotland). These Tracts are slices of the ocean floor that once separated northwestern Ireland from southeastern Ireland. The ocean is called the Iapetus Ocean, and is a major element of the geological history of Ireland. Sections of ocean floor were squeezed and stacked up as vertical slivers of rock (now called Tracts) adjacent to the subduction zone that consumed the Iapetus Ocean. The Iapetus Ocean floor rocks are poorly exposed in general and so quarries such as this are important reference sections.	CGS				IGH4 Cambrian to Silurian		
Carrickallen Quarry	Cavan	22, 27	35	656450	804110	Carrickatee Formation, representative of Moffat Shales in Central Belt of Longford - Down inlier	Carrickallen / Stradone	No	Tract of rocks in the Central Belt of the Longford – Down inlier. These Tracts are slices of the ocean floor that once separated northwestern Ireland from southeastern Ireland. The ocean is called the Iapetus Ocean. Sections of ocean floor were squeezed and stacked up as vertical slivers of rock (now called Tracts) adjacent to the subduction zone that consumed the Iapetus Ocean. In the eastern end of the quarry there are several well displayed faults that show the style of faulting in these rocks.	CGS			Phillips, W.E.A and Skevington, D. 1968. The Lower Palaeozoic rocks of the Lough Acanon area, Co.Cavan. Scient. Proc. R.Dublin Soc. 3A, 141-148.	IGH4 Cambrian to Silurian		
Cormeen Quarry	Cavan	26	35	653000	803744	Representative in Ireland of the 'Moffat Shale' graptolitic horizons which are widespread throughout the Longford-Down inlier.	Cormeen / Stradone	No	Representative in Ireland of the 'Moffat Shale' graptolitic horizons which are widespread throughout the Longford-Down inlier. These horizons are composed of black shales that in places contain deep-sea planktonic fossils such as graptolites. The Moffat shales are commonly found at the major bounding faults between large blocks of rock sequences, or 'tectonic tracts'. These tracts are displaced slices of former sea floor, which have been stacked almost vertically like cards. The fossils at Cormeen quarry give an age for the rocks and help explain the regional geological structures.	CGS		NHA		IGH2 Precambrian to Devonian Palaeontology		
Crossdoney Granite Quarry	Cavan	25	34	637600	800444	The Crossdoney Granite is one of a limited number of small early-Caledonian granitic intrusions across Ireland	Gortnashangan Upper or Hermitage / Crossdoney	No	The Crossdoney Granite is one of a limited number of small early-Caledonian granitic intrusions across Ireland. These were emplaced during the early stages of the Caledonian orogeny that occurred as the Iapetus Ocean closed near the end of the Silurian period. Larger granitic intrusions, including the Leinster Granite, formed slightly later in the orogeny, around 405 million years ago.	CGS				IGH11 Igneous intrusions		
Cuilcagh Meltwater Channels	Cavan	6, 7, 8, 9	26	614200	823230	The Cuilcagh Meltwater Channels comprise three deep gullies that were formed by meltwater erosion on the southeastern flank of Cuilcagh Mountain.	Altateskin, Altnadarragh, Legnaderk, Altachullion Upper, Altachullion Lower, Altbrean, Srahlahan, Drumcask, Knockroe, Knockranny, Gubrimmaddera, Cornalon, Gorteennaglogh, Furnaceland, Hawkswood, Aghaboy, Buinkeeragh / Swanlinbar	No	The features are formed in an area of glacial till of varying thickness and bedrock crops out in some parts of the gullies. The till forms a field of ribbed moraines and drumlins in this area flanking Cuilcagh and was deposited at the maximum of the last Ice Age. The channels themselves date from deglaciation at the end of the last Ice Age.	CGS			CLARK, C. D. AND MEEHAN, R.T., 2001. Subglacial bedform geomorphology of the Irish Ice Sheet reveals major configuration changes during growth and decay. Journal of Quaternary Science, 16 (5), 483-496. KNIGHT, J., 2006. Geomorphic evidence for active and inactive phases of late Devensian ice in north central Ireland. Geomorphology, 75, 4-19. KNIGHT, J. AND MCCABE, A.M., 1997. Identification and significance of ice-flow transverse subglacial ridges (Rogen moraines) in north central Ireland. Journal of Quaternary Science, 12, 219-224.	IGH7 Quaternary		
Cuilcagh Mountain	Cavan	4, 6, 7	26	612600	826700	The mountain comprises a thick succession of Carboniferous Dinantian and Namurian rocks.	Garvagh, Edenmore, Legnagrow, Legglass, Eshveagh, Ardvagh, Tullycrafton, Dunmakeever, Commas, Bursan, Bellavally Lower, Legnadirk, Aghnacollia, Altbrean, Tullydermot, Binkeeragh, Aghaboy, Moneydoo or Tonycrom, Alteen / Swanlinbar, Blacklion	No	The mountain comprises a thick succession of Carboniferous Dinantian and Namurian rocks. The sequence as a whole represents an episode of delta formation as falling sea levels saw Namurian sands begin to fill the shallow limestone seas of the Dinantian. The Meenymore Formation represents a very shallow sea, which locally dried up enough to form evaporate minerals such as gypsum. The shale formations are the 'background' deposition of muddy sediments from rivers entering the marine seas, from the north. Swamps sometimes formed on top of the deltas and left coal deposits, but not in Cuilcagh. The Lackagh Sandstone Formation on the top of Cuilcagh forms a hard resistant cap that has prevented the erosion that has reduced adjacent areas to a much lower height. A corrie has been etched into the	CGS	NHA?			IGH9 Upper Carboniferous to Permian	IGH8 Lower Carboniferous	
Drumcarban	Cavan	25	34	635593	798976	Copper and molybdenite mineralisation associated with Crossdoney Granite	Drumcarban / Cavan	No	The Crossdoney pluton outcrops a total of small area (c. 25 km2) 5km southwest of Cavan town. It is of interest as the only granitic intrusion in the county and at Drumcarban it is host to Cu-Mo-sulphide mineralization, a common metal association in granite intrusions worldwide but relatively rare in Ireland. At Drumcarban, the medium-grained equigranular hornblende-biotite granodiorite contains thin (few mm – 20mm wide) quartz veins that trend generally northnorthwest–southsoutheast. The veins contain scattered grains of chalcopyrite (CuFeS2) and molybdenite (MoS2).	CGS				IGH15 Economic Geology		

Drumod Spa Well	Cavan	7	26	620025	826607	The Spa Well is a hydrogeological phenomenon, where groundwater, which has been suffused with sulphurous minerals, rises naturally from the limestone bedrock	Drumod Glebe / Swanlinbar	No	The Spa Well is a hydrogeological phenomenon, where groundwater, which has been suffused with sulphurous minerals, rises naturally from the limestone bedrock. Water that can flow through enlarged conduits in limestone is in effect forced to the surface when it comes into contact with the impermeable rocks. Sulphur rich groundwater is relatively unusual, and the sulphur gives the water a distinctive taste and smell, usually of the offensive 'rotten eggs' nature. It has been prized in the past as contributing to good health and as a cure for rheumatism, and at one time Swanlinbar was a Spa Town. This is one of two sulphur wells in Swanlinbar; a third was rich in magnesium.	CGS				IGH16 Hydrogeology		
Kill	Cavan	37	34	642601	790507	Unique occurrence of anthracite coal in Silurian rocks	Kill / Kilnaleck	No	Kill is the only known location in the country where coal is found in Lower Palaeozoic rocks. The thickness of the coal-bearing layer varied from 3.4 m to mms (average 0.2m). Several pits were sunk in the 19th century and small amounts of the coal were raised but it proved to be practically incombustible and the workings were abandoned. The site today is largely devoid of any trace of the former coal workings.	CGS				IGH15 Economic Geology		
Lough Kinale-Lough Sheelin Deltas	Cavan	41	34	639600	781970	Ice marginal deglacial deltas	Carrick, Magheraboy Upper, Moat, Bracklagh, Kilgolagh / Mount Nugent	#3, #20 in part	The delta features are fine examples of the type of ice-marginal, deglacial features that often form at the edge of glacial lakes. The ridges seem to be comprised of several individual deltas, which coalesced to form one large ice marginal standstill in the locality. The deltas are chiefly made up of Lower Palaeozoic-age shale and sandstone clasts that were derived from the bedrock northwest of the site. These were carried by ice, released into a meltwater conduit on top of or within the ice, and then deposited subaqueously at the ice margin as the river left the ice.	CGS			MEEHAN, R.T., 2000. Kells and adjacent areas, County Meath Ireland. Glacial Landsystems Working Group Field Guide, Teagasc, Dublin, 70pp.	IGH7 Quaternary		
Mid-Cavan Drumlinised Ribbed Moraines	Cavan	15, 16, 20, 21	**27a, 28a**	654000	811000	Part of a very large field of ribbed moraines	Cavan - Cootehill - Stradone	No	These ribbed moraines each contain many superimposed drumlins on their crests, and the area has traditionally been known as the middle portion of the 'Drumlin Belt'. Owing to their size, the true scale and size of the ribbed moraines can only be seen using digital elevation modelling (DEM) and satellite imagery. This ribbed moraine field is not only unusual in its size and for the size of individual features, but also for being interspersed with thick peat which allows the features to stand out in a quite striking fashion. They form the perfect 'ribbed' topography.	CGS			CLARK, C. D. AND MEEHAN, R.T., 2001. Subglacial bedform geomorphology of the Irish Ice Sheet reveals major configuration changes during growth and decay. Journal of Quaternary Science, 16 (5), 483-496. KNIGHT, J., 2006. Geomorphic evidence for active and inactive phases of late Devensian ice in north central Ireland. Geomorphology, 75, 4-19. KNIGHT, J. AND MCCABE, A.M., 1997. Identification and significance of ice-flow transverse subglacial ridges (Rogen moraines) in north central Ireland. Journal of Quaternary Science, 12, 219-224.	IGH7 Quaternary		
Moneycass Glebe	Cavan	2	35	654312	804660	Late Ordovician graptolite and trilobite fossils	Moneycass Glebe / Stradone	No	The rock exposures around the margins of the field have yielded a very unusual collection of fossils. The fossils are mostly graptolites but they occur with a trilobite species that is only known from this locality. The combination of fossils is an important rarity for understanding the geology of the region, and dating the rocks in Cavan. The graptolites of two biozones occur in succession, and a deep water trilobite, now classified as Songxites cellulana was washed in with a few other fossils of nautiloids and ostracods. In modern stratigraphical terminology, these are from the late Katian to Hirnantian Stages of the Upper Ordovician, formerly defined as Ashgill.	CGS		NHA	SIVETER, D.J., INGHAM, J.K., RICKARDS, R.B. and ARNOLD, B. 1980. Highest Ordovician trilobites and graptolites from County Cavan, Ireland. Journal of Earth Sciences, Royal Dublin Society 2, 193-207.	IGH2 Precambrian to Devonian Palaeontology		
Pollprughlisk	Cavan	7	26	616483	828830	Pollprughlisk is part of an integrated system of fracture controlled vertical caves connected by bedding controlled horizontal caves	Alteen, Greenan / Swanlinbar	No	Pollprughlisk (and Pollnatagha – Polliniska) is part of an integrated system of fracture controlled vertical caves connected by bedding controlled horizontal caves and is one of the best examples of this geomorphological feature in Ireland. A surface river sinks into Polliniska, but a slight dry valley that continues to the Pollprughlisk entrance suggests it originally also flowed to that cave.	CGS		NHA	Jones, G., Burns, G., Fogg, T. & Kelly, J. 1997. The Caves of Fermanagh & Cavan.	IGH1 Karst		
Redhills	Cavan	7	27	646877	815675	Red, ferruginous shales of the Ordovician Coronea Formation	Claragh / Redhills	No	The site is one of three in the Redhills area where the red shales of the Coronea Formation were mined for iron in the 19th century. The original Fe content of the red shales at Claragh is 5–7% but local enrichment occurred, under conditions of faulting and folding, to produce a low-grade ore containing 17–24% soluble iron. The rock is broken up by a dense network of joint planes along which Fe enrichment has occurred. The ore is composed mainly of hematite (Fe2O3). The Redhills Mining Company first worked the deposit in 1872, producing c. 5,000 tonnes by June of that year, but by 1878 production had ceased because of the high silica content of the ore.	CGS	NHA?			IGH15 Economic Geology		
Rockcorry-Cootehill Ribbed Moraines	Cavan	16, 17, 18	28A	666000	891000	Very large field of ribbed moraines	Cootehill	No	These ribbed moraines each contain many superimposed drumlins on their crests, and the area has traditionally been known as the middle portion of the 'Drumlin Belt'. Owing to their size, the ribbed moraines can only be seen using digital elevation modelling (DEM) and satellite imagery. This ribbed moraine field is not only unusual in its huge size and the large size of individual features around Rockcorry and Cootehill, but because they are interspersed with thick deposits of peat, the features are quite strikingly defined, forming the perfect 'ribbed' topography. The moraines are generally 5–8km long and 800m or so wide, with individual superimposed drumlins being c. 600m long and 100–200m wide. They attain a maximum height of about 50m but are typically 30m or so high. The largest individual feature is 10 km long, 1 km wide and up to 45m high, meaning it comprises approx. 400 million tonnes of sediment.	CGS	NHA?		CLARK, C. D. AND MEEHAN, R.T., 2001. Subglacial bedform geomorphology of the Irish Ice Sheet reveals major configuration changes during growth and decay. Journal of Quaternary Science, 16 (5), 483-496. CLARK, C.D., MEEHAN, R.T., HATTESTRAND, C., CARLING, P., EVANS, D. and MITCHELL, W., 2001. Palaeoglaciological investigations exploiting remote sensing, elevation models and GIS. Slovak Geological Magazine, 7(3),313.	IGH7 Quaternary		

Scotshouse-Redhills Cross-cutting Ribbed Moraines	Cavan	11, 12, 15, 16, 17, 18	28A	644600	818000	Very large field of ribbed moraines, with only known cross-cutting ribbed moraines	Redhills	No	These ribbed moraines each contain many superimposed drumlins on their crests, and the area has traditionally been known as the northern portion of the 'Drumlin Belt'. Owing to their size, the ribbed moraines can only be seen using digital elevation modelling (DEM) and satellite imagery. Nowhere else in the world have ribbed moraines been noted where they record two separate ice flows. Here, the major orientation of the moraines is northwest to southeast, but there are also forms adjoined to these which are oriented northeast to southwest. The features therefore record flow from two different directions. In plan view they appear as irregular, wavy, snake-like forms. The features are generally 1-2km long and 500m or so wide, with individual superimposed drumlins being c. 400m long and 100m-200m wide. The ribbed moraines are typically 20m high but can reach a maximum height of 30m.	CGS	NHA?		CLARK, C. D. AND MEEHAN, R.T., 2001. Subglacial bedform geomorphology of the Irish Ice Sheet reveals major configuration changes during growth and decay. Journal of Quaternary Science, 16 (5), 483-496. CLARK, C.D., MEEHAN, R.T., HATTESTRAND, C., CARLING, P., EVANS, D. and MITCHELL, W., 2001. Palaeoglaciological investigations exploiting remote sensing, elevation models and GIS. Slovak Geological Magazine, 7(3),313.	IGH7 Quaternary		
Swanlinbar River	Cavan							No		CGS					IGH		
Tullydermot Falls	Cavan	7	26	614935	824797	Waterfall	Tullydermot, Altbrean / Swanlinbar	No	The waterfall is a small but well developed example of a waterfall occurring at a thick sandstone bed. The turbulence caused in the plunge pool where the water passes over the bed, has had the action of eroding out the underlying shale bed, which is much less resistant to erosion. As the shale is eroded out the thick sandstone becomes unsupported and eventually collapses. This causes the waterfall to recede upstream, and the process continues again.	CGS				IGH14 Fluvial and Lacustrine Geomorphology		
Western Cuilcagh - Burren Forest	Cavan	4	26	607080	834250	Karst limestone area with erratics on pedestals and dolines	Burren, Gortnaleg, Lanliss	No	Most visible features are the glacial erratics. These are large boulders of sandstone from Cuilcagh Mountain that have been dumped by ice onto limestone rocks. Because they are insoluble, the sandstone erratics protect the limestone underneath from solution by rainwater and thereby create a pedestal on which the sandstone boulder sits. The height of this pedestal (around 30 cm on average) reflects how much the limestone land surface has been lowered by weathering since the Ice Age ended. In the northeastern part of the Burren Forest is the Lost Valley, a large doline, or enclosed depression, into or from which no river flows. Due to its size and complexity the Lost Valley may be considered as an uvala, or a series of coalesced dolines, rather than a single one.	CGS		NHA	Jones, G., Burns, G., Fogg, T. & Kelly, J. 1997. The Caves of Fermanagh & Cavan. Lemon, K. 2010. Our Outdoor Classroom. A teaching resource guide to the Marble Arch Caves Global Geopark.	IGH1 Karst		
Western Cuilcagh - Corratirrim	Cavan	2	26	607650	836010	Limestone pavement	Corratirrim, Lanliss / Blacklion	#6	This site has an extensive area of limestone pavement which developed where cracks and fissures were enlarged by rainwater solution of the limestone to form grykes. The upstanding areas of limestone between the enlarged joints are called clints. There are areas of pavement with bare rock, others where grass has begun to overgrow the pavement and other areas within the site where a complex mosaic of acid soils and vegetation such as heather or rushes are covering the limestone in a thin veneer. A few small caves and dolines are present.	CGS		NHA	Jones, G., Burns, G., Fogg, T. & Kelly, J. 1997. The Caves of Fermanagh & Cavan. Lemon, K. 2010. Our Outdoor Classroom. A teaching resource guide to the Marble Arch Caves Global Geopark.	IGH1 Karst		
Western Cuilcagh - Garvagh Lough	Cavan	4	26	607612	833308	Perched lake on karst limestone	Tawnamakelly, Garvagh, Mullaghboy, Legeelan / Blacklion Tawnamakelly, Garvagh, Mullaghboy, Legeelan NEAREST TOWN Blacklion	No	Garvagh Lough is unusual within the western Cuilcagh site in that lakes do not usually form on limestone terrain as drainage is normally subterranean. Garvagh Lough is probably perched on a veneer of glacial till which serves to seal off the bedrock Several streams enter the lake and one outlet river sinks at Pollnaowen. This lake was the site of the first recorded water tracing experiment in 1872. Wheat chaff thrown into the lake sank at Pollnaowen and reappeared at Shannon Pot.	CGS		NHA	Jones, G., Burns, G., Fogg, T. & Kelly, J. 1997. The Caves of Fermanagh & Cavan. Lemon, K. 2010. Our Outdoor Classroom. A teaching resource guide to the Marble Arch Caves Global Geopark.	IGH1 Karst		
Western Cuilcagh - Legeelan Quarry	Cavan	4	26	606696	833988	Limestone mud mound in cross section	Legeelan / Blacklion	No	The quarry displays the internal structure of a Lower Carboniferous mud mound, typical of the Knockmore Limestone Member of the Dartry Limestone Formation. These mudmounds formed contemporaneously with the bedded, cherty limestone of the Dartry Limestone Formation so it is common to see beds of limestone flanking the massive mud mounds. At Legeelan Quarry a mud mound can be seen as massive limestone, with beds of limestone draped over the mound and dipping down the flanks.	CGS		NHA	Lemon, K. 2010. Our Outdoor Classroom. A teaching resource guide to the Marble Arch Caves Global Geopark.	IGH8 Lower Carboniferous		
Western Cuilcagh - Pollnaowen	Cavan	4	26	606982	833200	Sinks of a surface river in karst limestone	Mullaghboy / Blacklion	No	This site is a classic karstic feature of a surface river sinking into limestone and becoming underground drainage. The river draining from Garvagh Lough sinks into the bedrock over several tens of metres. It is reputedly the site of the first water tracing experiment in 1872, when chaff from harvesting wheat was put in the water and then seen emerging at Shannon Pot. The drainage connection is only one of many in the west Cuilcagh area that connect to Shannon Pot, traditionally considered to be the source of the River Shannon.	CGS		NHA	Jones, G., Burns, G., Fogg, T. & Kelly, J. 1997. The Caves of Fermanagh & Cavan. Lemon, K. 2010. Our Outdoor Classroom. A teaching resource guide to the Marble Arch Caves Global Geopark.	IGH1 Karst		
Western Cuilcagh - Shannon Pot	Cavan	4	26	605332	831753	Karstic rising	Derrylahan / Blacklion	#8	This spring rising is traditionally regarded as the source of the River Shannon, the longest river in Ireland. It is a large pool, 16 m in diameter, which has been dived to 9 m depth below which it becomes impassable. The water is sourced from very many sinks in the Cuilcagh uplands to the east, some coming from East Cuilcagh, 10 km away at Pigeon Pot in County Fermanagh. Although it largely travels underground in the Dartry Limestone Formation, it is capped by slightly younger sandstones and evaporite (gypsum-bearing) rocks. These have been breached where the rising occurs at Shannon Pot.	CGS		NHA	Jones, G., Burns, G., Fogg, T. & Kelly, J. 1997. The Caves of Fermanagh & Cavan. Lemon, K. 2010. Our Outdoor Classroom. A teaching resource guide to the Marble Arch Caves Global Geopark.	IGH1 Karst		
Western Cuilcagh - White Father's Cave	Cavan	2	26	605274	837528	Three short sections of one cave with unroofed sections between them	Loughan, Killycarney, Termon / Blacklion	#25	White Father's Caves are three short sections of one cave with unroofed sections between them. The river in the cave comes from the Barran rising about 2 km away to the southwest. It previously sank at Pollnagossan. The first cave is a dry bridge, a short natural bridge under the old road. Beside the new road the river passes into a 60 m long second cave section which passes under the road. The third cave is longer and runs for about 200 m before emerging to run into Lough Macnean. The entire cave is well decorated with speleothems.	CGS		NHA	Jones, G., Burns, G., Fogg, T. & Kelly, J. 1997. The Caves of Fermanagh & Cavan. Lemon, K. 2010. Our Outdoor Classroom. A teaching resource guide to the Marble Arch Caves Global Geopark.	IGH1 Karst		