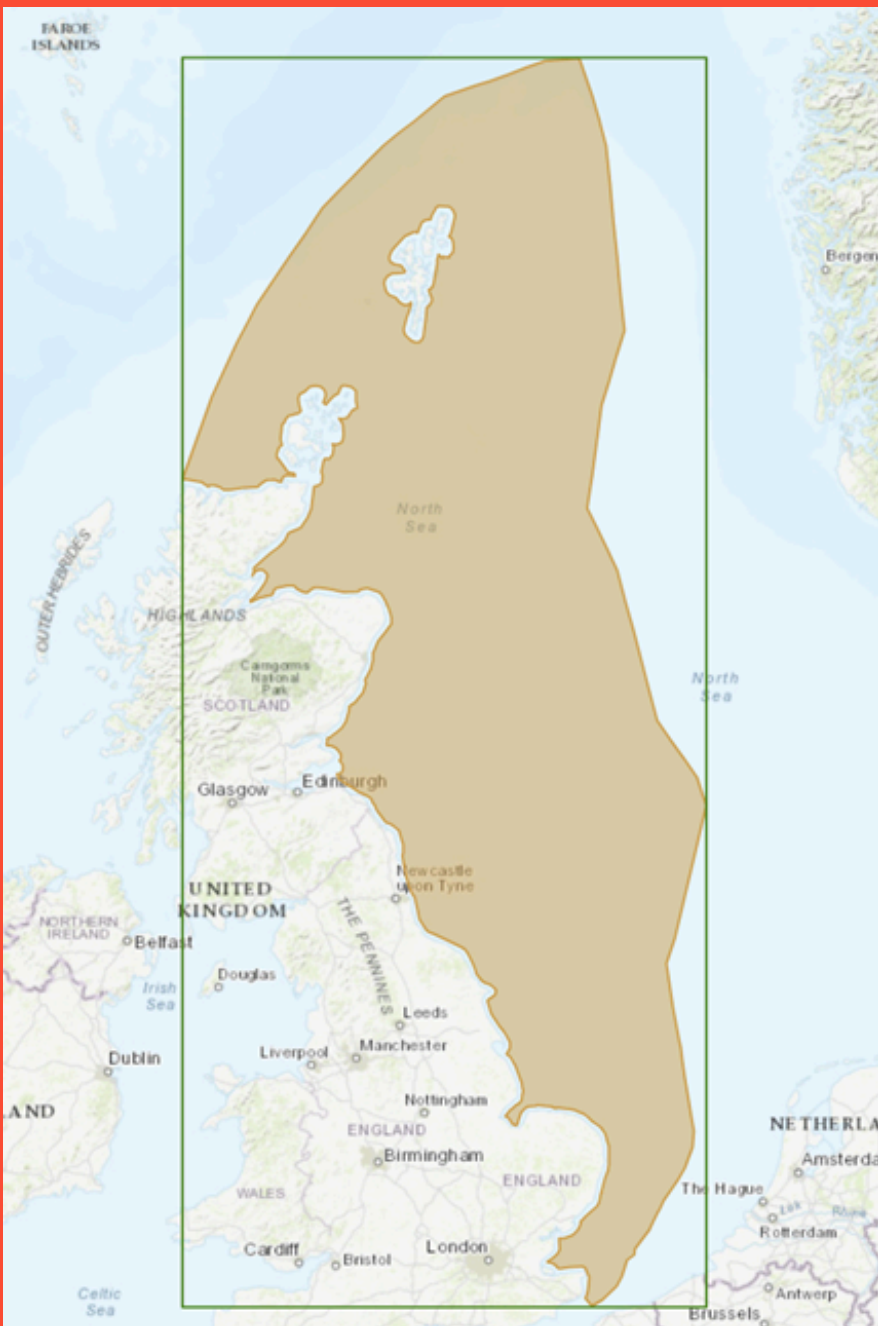




# Geodetic Data Management



Geodetic data management refers to the practices your organisation has in place to ensure that the metadata associated with all exploration data is consistent with the coordinate reference systems and coordinate operations published by government agencies and other recognised bodies. Over 80% of the data types used in the exploration cycle have a geo-spatial component, e.g., they have coordinates. When using these data types it is important to apply the correct QC methods of ensuring data compliance before it is used in any decision making. Without such checks the geospatial integrity is often compromised leading to potential legal, economic and HSSE issues.



Prudent selection of geo-spatial parameters at the inception of a project will ensure that distortions and error budgets are effectively managed. Due to the variability in project types across an organisation, being ignorant of thresholds and tolerances invites error[ME1].

[ME1]@[Sam Webb](#) Tried to make this more brief (spec was ten or fewer lines)

Ensuring project teams make reasoned decisions on the management of geo-spatial data is key to maintaining data integrity. This includes established the geodetic parameters when creating a new workstation project, the careful selection of CRSs when loading data to a project and understanding all coordinate operations conducted during these processes. This guarantees the required understanding that data characteristics are preserved, and the magnitude of any distortions are appropriately controlled



Our geo-spatial team have all the required tools and experience to ensure your geoscientists are not burdened with making corrective geodetic decisions that fall outside of their area of knowledge. A few minutes of our time will potentially save many hours or days of their time. It is common practice for project teams to use multiple software applications all of which will potentially treat the geo-spatial aspects of exploration data in different ways. This ranges from the inventory of their geodetic databases to the algorithms they apply in coordinate operations. Understanding such matters and the nuances of these applications will help ensure higher levels of precision are maintained. Project delays and data mis-ties should not burden the efficiency of your geoscientists.

Managing the geo-spatial parameters associated with CRSs, conversions and transformations, used by your organisation, is obligatory to establishing the necessary geodetic framework. Uncontrolled referencing, especially from open-source software, can introduce time-consuming problems and errors, especially if audit trails are not conducted. Maintaining a corporate catalogue within which the centralised geodetic database resides will ensure all users, services, and applications apply the same system of record

COORDINATE SYSTEM: Cartesian 2D CS. Axes: easting, northing (X,Y). Orientations: east, north. UoM: ftUS

BASE CRS: NAD27

CONVERSION: BLM zone 15N (US survey foot)

Conversion Details [VALID]

NAME: BLM zone 15N (US survey foot)

CODE: 15915

USAGE:

Usage Details

SCOPE: Topographic mapping.

EXTENT: USA - 96°W to 90°W and GoM OCS

CONVERSION METHOD: Transverse Mercator

CONVERSION PARAMETERS:

Parameter	Value	Unit	Reversible
Latitude of natural origin	0	degree	No
Longitude of natural origin	-93	degree	No
Scale factor at natural origin	0.9996	unity	No
False easting	1640416.67	US survey foot	No

Understanding how geodetic data are managed across the range of subsurface, GIS and computational applications used removes geo-spatial error being introduced by different systems using different definitions. The company provides analysts with the required expertise to determine the consistency with which application libraries apply coordinate operations on projects containing important seismic and well related data. The company offers a range of synchronisation tools that interface between the central geodetic database and popular applications, including SLB Petrel/Studio and ESRI ArcGIS to ensure the compliance required across your organisation.

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