

# Update to Mineral Reporting Guidelines and Confidentiality discussion

Helen Degeling  
18<sup>th</sup> Sept 2019



- Mineral Reporting Guidelines
  - Updated guidelines and data templates released in July 2019
  - Mandatory from July 2020
- Limited term data confidentiality
  - Currently life of tenure
  - Earlier this year - proposed 2 year confidentiality for exploration data

# Reporting Guidelines - Timeline

2016

## Reporting Guideline Published

- Preserved “current state”
- Clarified Regulation
- Digital lodgement – Production/Reserves
- Limited report types

## New Draft Reporting Guideline

- Improved specifications
- Reduced report body
- Applied industry standards and best practice for data management
- Developed submission templates

2019

## Engagement

- ◇ Internal Consultation
- ◇ Industry Consultation
- ◇ Incorporate feedback

2020

## Final Reporting Guideline

- Consideration of feedback
- Testing template compatibility
- Draft and finalise guideline
- Finalise submission templates

# Reporting Guidelines - Data Templates

- Data templates developed in Excel
- Simple instructions, template dictionary

	B	C	D	E	F	G	H	I	J	K	L
1	DRILLHOLE_ID	STATION_MD	INCLINATION	AZIMUTH	SURVEY_TYPE	SURVEY_COMPANY_BA_ID	SURVEY_START_DATE	SURVEY_END_DATE	DOG_LEG_SEVERITY	DOG_LEG_SEVERITY_OUOM	COMPUTE
2	H1000				H0532	H0533					
3	T	T	T	T	T	T	T	T			
4	VARCHAR2	NUMBER	NUMBER	NUMBER	VARCHAR2	VARCHAR2	DATE	DATE	NUMBER	VARCHAR2	VARC
5	255	10,5	10,5	10,5	40	40	DATE	DATE	10,5	40	4
6	-	METRES	DEGREES	DEGREES	-	-	DD-MMM-YYYY	DD-MMM-YYYY	-	-	
7	-	2	0	0	-	-	-	-	-	-	
8	DRILLHOLE ID: Unique name and/or number assigned to the drillhole by the operator.	STATION MEASURED DEPTH: Depth measured along the drillhole from the depth reference datum to the survey station. It is mandatory to report this in metres.	DRILLHOLE DIP: The angle (in degrees) at surface of drillhole deviation away from the vertical. 0 degree inclination is horizontal and +90 degree inclination is vertical (downward).	AZIMUTH: The angle (in degrees) of clockwise departure from true north to the drillhole direction.	REPORT SURVEY TYPE: Type of tool or equipment used to acquire the directional survey (e.g. MWD, Gyroscopic, Multirot Camera etc).	SURVEY COMPANY BUSINESS ASSOCIATE ID: The company or entity that conducted the downhole survey.	SURVEY START DATE: Date the directional survey commenced. It is mandatory to report this in DD-MMM-YYYY format.	SURVEY END DATE: Date the directional survey was completed. It is mandatory to report this in DD-MMM-YYYY format.	DOG LEG SEVERITY: The rate of change in the wellbore inclination at the survey station.	DOG LEG SEVERITY OUOM: The original unit of measure for the dog leg severity value.	COMPUTE METHOD: Method used to calculate attribute value. Directional Survey Curvature, Minimum Balanced Tangent
9											
10											
11											
12											
13											
14											
15											
16											

TEMPLATE\_NOTES

VALIDATION\_DICTIONARY

TENEMENT

DRILLHOLE\_LOCATION

DRILLHOLE\_SURVEY

GEOCHEMISTRY\_DRILLH ...

# What

## Data input: Geoscience data reporting guidelines

- Reporting using the guidelines is voluntary until the GSQ Open Data Portal is fully established at end calendar year 2020
- The guidelines will become mandatory – timed to align with technological readiness
- GSQ will provide regular updates of progress and key dates
- The guidelines seek to provide greater definition for reporting within the bounds of current regulation (“mandatory reporting”)
- Some changes are proposed which may require regulation or policy change (“good industry practice”)
- Industry feedback received to date noted. Some matters raised require regulatory change (which will be considered)

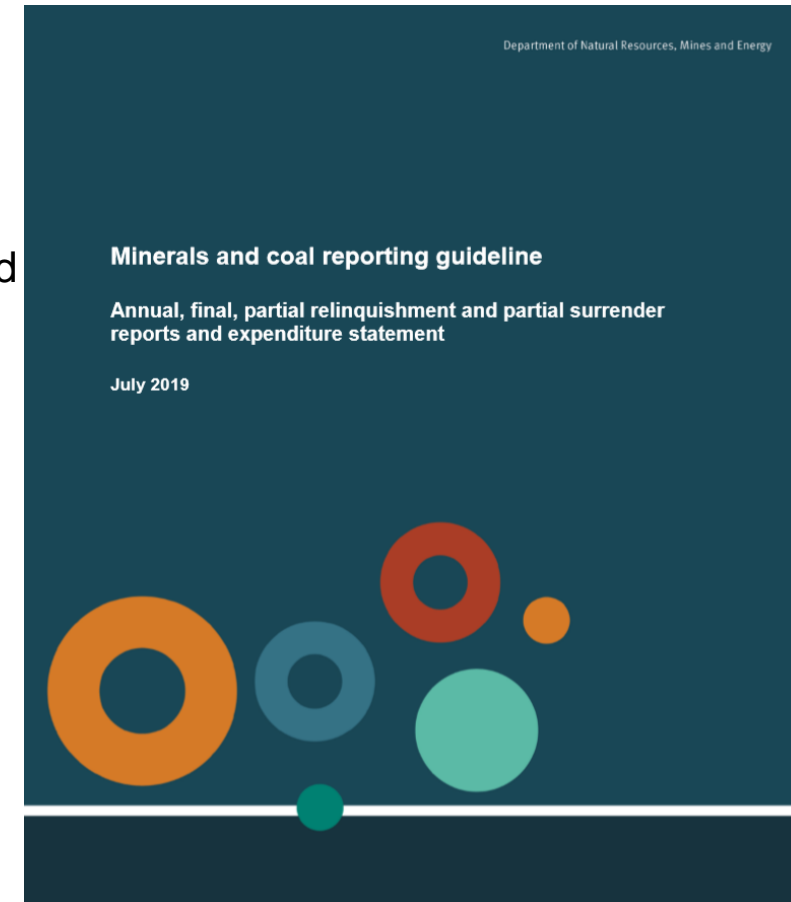


# Mineral Resources – Reg 13 (as revised 2013)

- The activity report must contain the following—
  - (a) a full technical summary of the authorised activities for the permit or licence carried out during the reporting period for the permit or licence, including—
    - **(i) assay results**; and
    - **(ii) geological, geophysical, geochemical, drilling or remote sensing data**, including maps showing the geophysical and geochemical anomalies and prospects or mineralisation in the area; and
    - **(iii) any three-dimensional models generated as part of exploration** in the area;
  - (b) a statement detailing whether the program of activities for the permit or licence was complied with during the reporting period, including details of, and reasons for, any failure to comply with the program;
  - (c) a statement of the authorised activities proposed to be carried out under the permit or licence for the next reporting period for the permit or licence;
  - (d) a **statement and a map with cross-sections of any resources and reserves** identified;
  - (e) a description of any significant mineralisation identified and related geological or structural features;
  - (f) an expenditure statement complying with section 14.

# FAQ: Geoscience data reporting guidelines

- **Reporting templates:**
  - Allow us to clearly define what each field means
  - Coal Log is an acceptable format
  - Provide consistency across commodity groups
  - To streamline data ingestion
- **3D exploration models:**
  - The current MRR describe requirement – potential changes can be considered
- **Reporting beyond legislation:**
  - Not mandatory yet, but changes will be made to Regs & Policy
  - Head of Power to make changes exists in MRA
- **Outcomes based exploration**
  - Matter to be discussed with Coal & Mineral Hubs as to how to capture supporting data
- **Resource and Reserve data**
  - Competent person issue
  - Should not require polygons



# Confidentiality - Problem statement

## Loss of opportunity and benefit

- Current reporting and associated confidentiality provisions relating to *Mineral Resources Act* tenures makes data **unavailable** or so long **delayed** as to be of **little use**.

## What do we need to do?

- Remove or lower barriers to new entrants obtaining information
- Improve productivity, efficiency, efficacy and success of exploration companies

## Broader impacts

- Environmental and community/non technical risk
  - Inability to locate and determine status (open, suspended, plugged etc) of legacy holes
- Runs counter to the objectives of the MRA – to “encourage and facilitate prospecting and exploring for and mining of minerals”

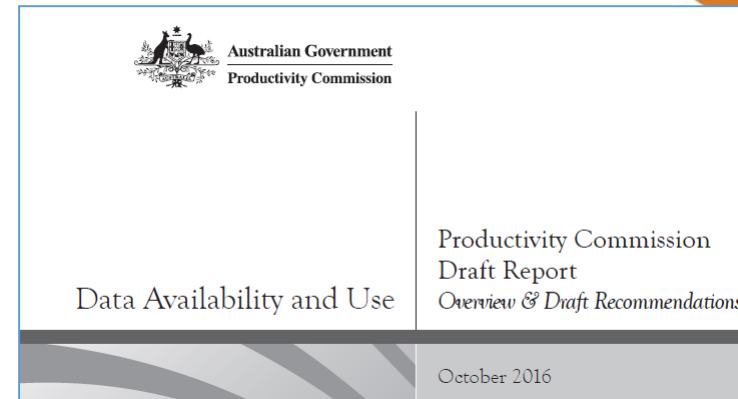


# Confidentiality - Accessibility

What do we need to do to improve it?

## Major issue: Address confidentiality restrictions

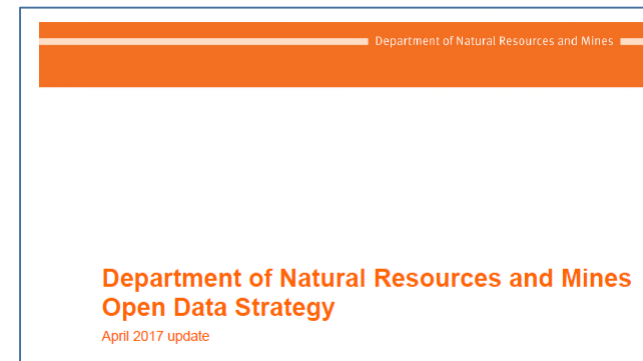
- A large amount of data held by GSQ is not publicly available
- Confidentiality restrictions are a major limiting factor
- Lack of data is a limiting factor in enabling industry exploration success
- Contrary to contemporary approaches at national and state level – Open vs Closed data



Access denied — Australia's lost opportunities



Fundamental change is needed



# Confidentiality – current state

## ***Petroleum & Gas Act***

- **Exploration**
  - *2 year confidentiality term for exploration & appraisal wells, seismic etc*
- **Production**
  - *5 year confidentiality for development wells*
  - *6-month confidentiality period for bi-annual reporting of reserves and production*

## ***Mineral Resources Act***

- **Exploration**
  - *Nil*
- **Production**
  - *Nil*

Policy position has been for MRA confidentiality to run life of tenure

# Confidentiality – change

***Mineral Resources Act* amended in  
Oct 2018**

**New provision inserted – s382**

**Gives power to establish  
confidentiality and data release  
measures**

## Part 6

## Releasing required information

### 382 Public release of required information

- (1) A holder of a mining tenement is taken to authorise the chief executive to do the following in relation to required information for the mining tenement after the end of any confidentiality period prescribed by regulation—
  - (a) publish, in the way prescribed by regulation, the required information for public use;
  - (b) on payment of a fee prescribed by regulation, make the required information available to any person.
- (2) A confidentiality period prescribed under subsection (1) does not apply if the required information is about an authorised activity carried out in an area that is no longer in the area of the mining tenement.

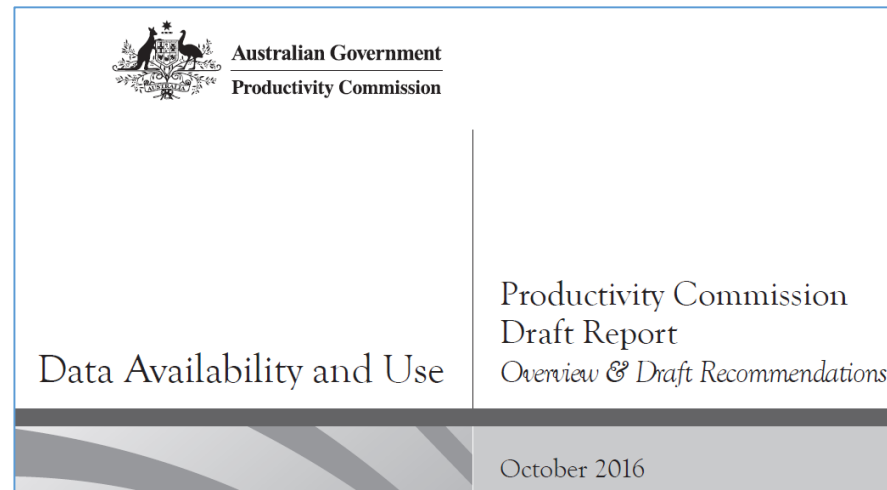
*Example—*

The required information is a seismic survey carried out on particular land in the area of an exploration permit. Subsection (1) does not apply if all of that land is reduced from the area of the permit.

- (3) The authorisation is not affected by the ending of the mining tenement.

# Confidentiality – updated proposal

- Defined confidentiality periods remain a key issue and consultation is still underway
- Proposal:
  - Exploration tenure – **5 years**
  - Production and retention tenure – **2 years**
  - Production and reserve statistics – **no change**
- Legacy data that is 5+ years old would become open file
  - Proposed ~ Jan 2021



The image shows the cover of a document from the Department of Science, Information Technology and Innovation. The title is 'Queensland Government Open Data Policy Statement'. It includes a summary of the policy, a list of principles, and a section on the open data policy statement.

Department of Science, Information Technology and Innovation

## Queensland Government Open Data Policy Statement

Data is increasingly vital to solving real world problems. The Queensland Government is committed to releasing data and allowing it to be freely used, reused and redistributed by anyone, anytime, and anywhere. Open data can bring a number of benefits to Queensland, including to:

- foster transparent, accountable, efficient, responsive and effective government
- support the design, delivery and assessment of better services for citizens and businesses
- improve the evidence-base for policy and programs
- provide major opportunities for innovation and underpin growth of the digital economy

The Queensland Government is committed to building a trusted data ecosystem that makes important data open for anyone to access, use and share. Open data is non-sensitive data that is freely available, easily discovered and accessed, published in ways and with licences that allow easy reuse.

### 1 Principles

The Queensland Government recognises the importance of effectively managing the release of government data to optimise the use and reuse of open data for the benefit of the Queensland people. The Queensland Government commits to following the International Open Data Charter<sup>1</sup> principles:

1. Open by Default
2. Timely and Comprehensive
3. Accessible and Usable
4. Comparable and Interoperable
5. For Improved Governance and Citizen Engagement
6. For Inclusive Development and Innovation

### 2 Open Data Policy Statement

The Queensland Government holds large amounts of data that will be made open. Our objectives in publishing open data are to:

- **Stimulate economic activity** and innovation by making government data available for commercial reuse
- **Improve public services** by using and sharing government data to support evidence-based policy and program design

# Update to GSQ Geoscience Systems

Matthew Greenwood  
Regional Compilations Manager

# Updates to GSQ systems

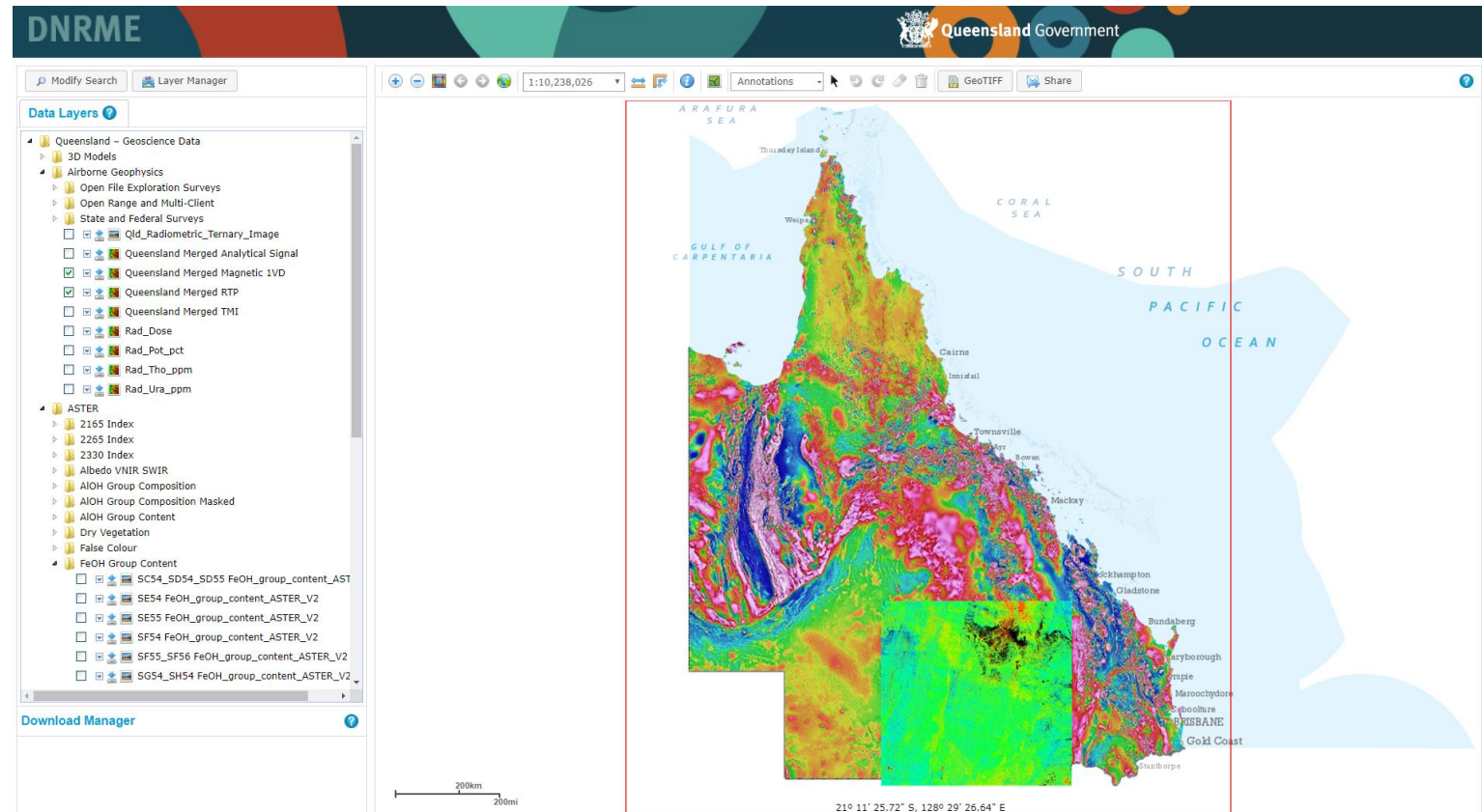


- QDEX Data Upgrade
- GeoResGlobe replacement to Mines Online Maps
- GDMP Data Lake pilot

# QDEX Data

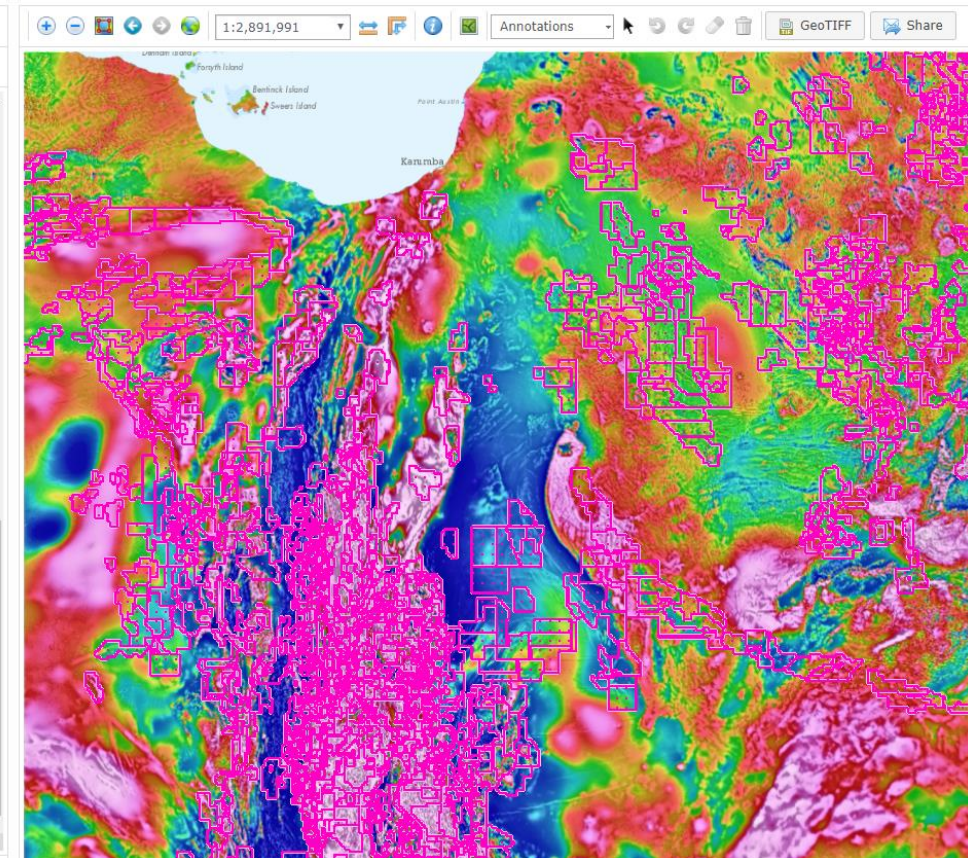
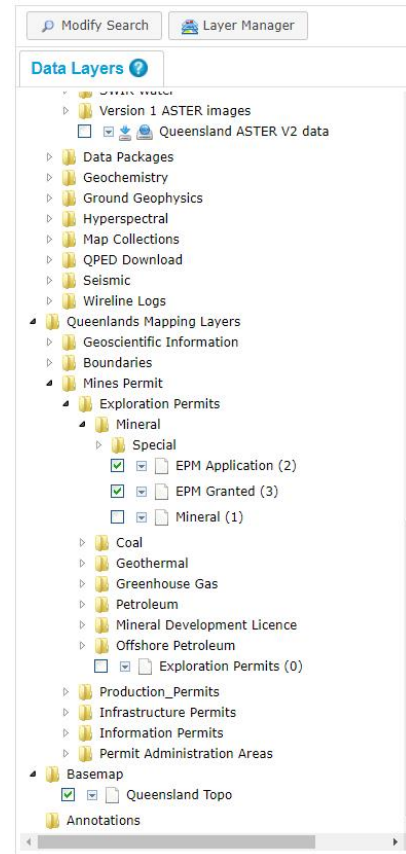
- Airborne and ground geophysics
- Hymap and ASTER data
- Geochemistry
- Seismic
- Wireline logs
- Geological mapping
- Large data from reports
- 3D Models

<http://qdexdata.dnrme.qld.gov.au>



# Updates to QDEX Data

- Updated DAP software and backend database version
- AOI/query selection screen to reduce results
- Spatial layers from WMS/WFS or import shapefile
- Share maps as preloaded links or images
- Simple GIS tools (Transparency / annotations)





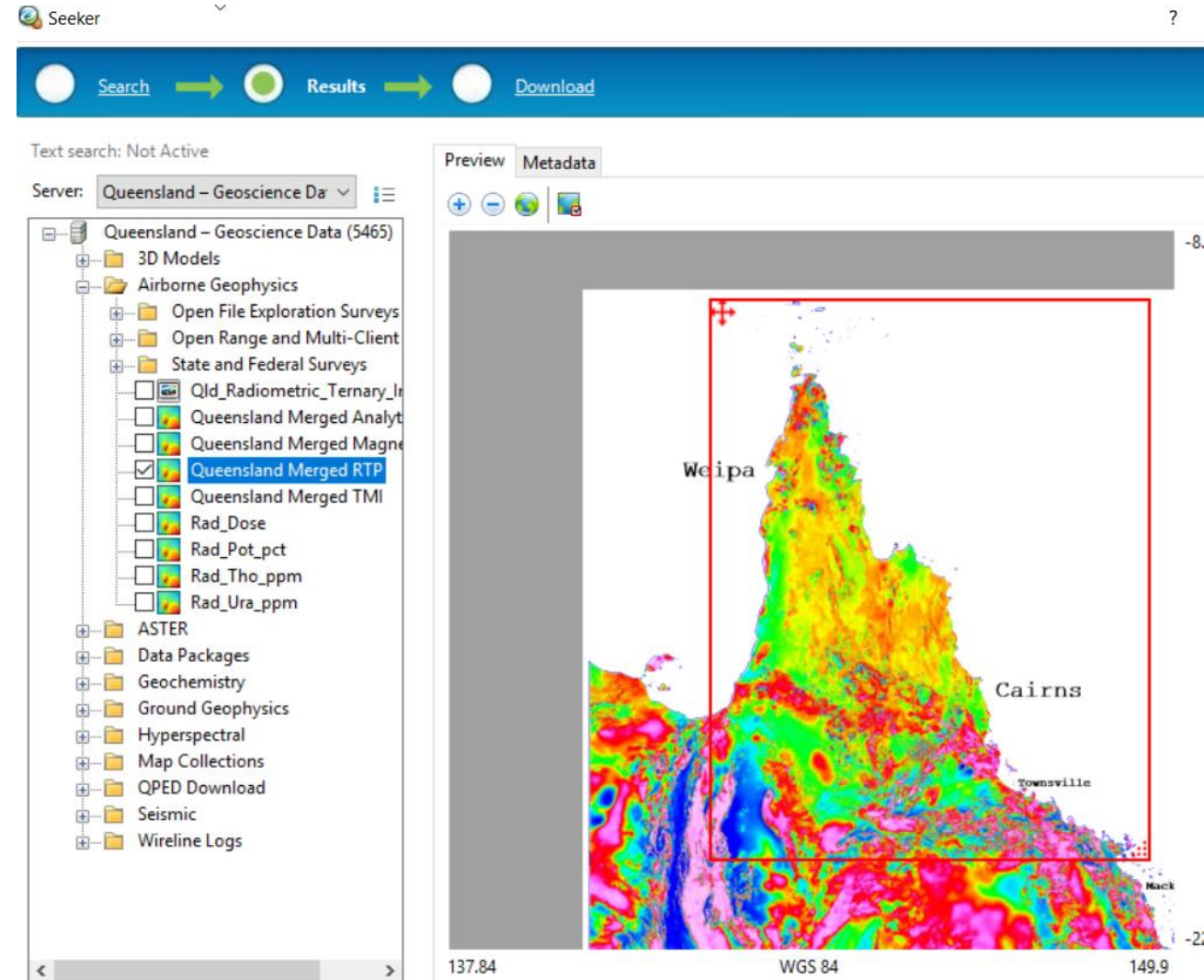
# Updates to QDEX Data

- Define AOI/Search
- Add data layers and spatial features
- Select download options
- Object packaged and presents for download

The screenshot displays the QDEX web application interface. At the top, the DNRME logo and Queensland Government branding are visible. The interface includes a search bar, a layer manager, and a main map area. The map shows a complex network of pink and red lines representing boundaries or data layers, overlaid on a colorful topographic or radiometric background. Numerous labels with EPM numbers (e.g., EPM 26647, EPM 27316, EPM 27031, EPM 26605) are scattered across the map. On the left side, a 'Data Layers' panel lists various data sources, including '0060\_Millungara-Boomarra Open Range', '0356\_Lady Loretta Open Range', '0474\_Mount Isa Open Range (Isa Valley)', '0550\_Pegmont Open Range', '0701\_Yaringa Open Range', '0921\_Kuridala Geotem', '1122\_Mount Isa Open Range', '1131\_Mt Isa Georgina Basin Tempest', '1197\_Mt Isa District VTEM', 'State and Federal Surveys', 'ASTER', 'Data Packages', and 'Geochemistry'. The 'RTP\_1122' layer is selected. At the bottom, a 'Download Manager' section shows the 'RTP\_1122' layer with a size of 81.2 MB and a download icon.

# Seeker Tool

- Allows direct access to QDEX Data DAP via GIS and import data objects directly into GIS project
- Plug in to [ArcGIS](#) and [MapInfo](#), native in Oasis Montaj and free Oasis Montaj viewer.
- DAP address (new)  
<http://qdexdata.dnrme.qld.gov.au>



# Seeker Demo



<http://qdexdata.dnrme.qld.gov.au>

# MinesOnlineMaps is being replaced



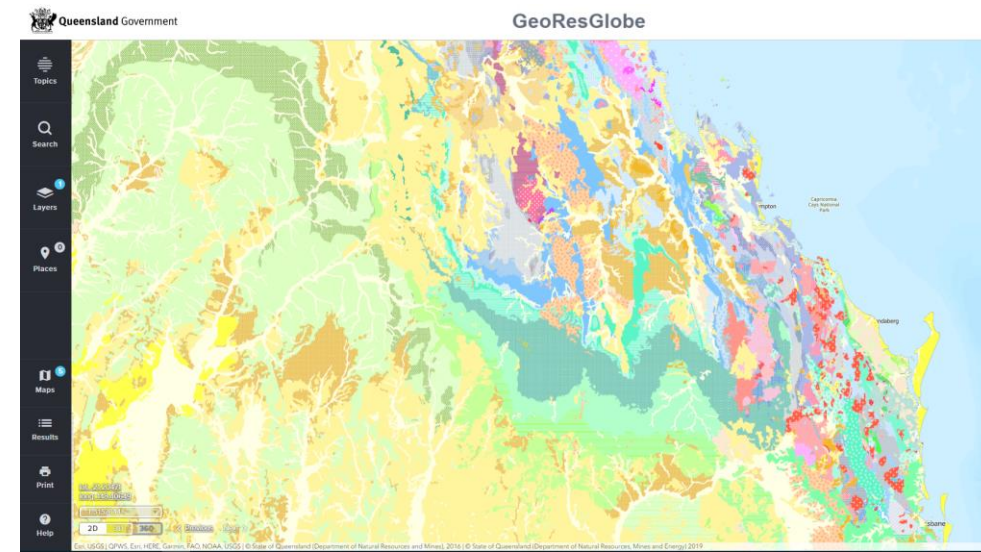
- Why? MinesOnline Maps is running on old technology
  - only runs on the Internet Explorer 11 browser and uses Silverlight
- Introducing GeoResGlobe – the new mines spatial viewer



# GeoResGlobe



- Combines the best functionality of MinesOnlineMaps (MOMaps) with new features from the QLD Globe
- Aligns with the Queensland Globe user experience
- Web-based application that runs on desktops and tablets  
Chrome, Edge and Safari recommended
- First release – *available now* - includes most commonly used features of MOMaps
- Additional functions in Release 2
  - Release 2 available soon

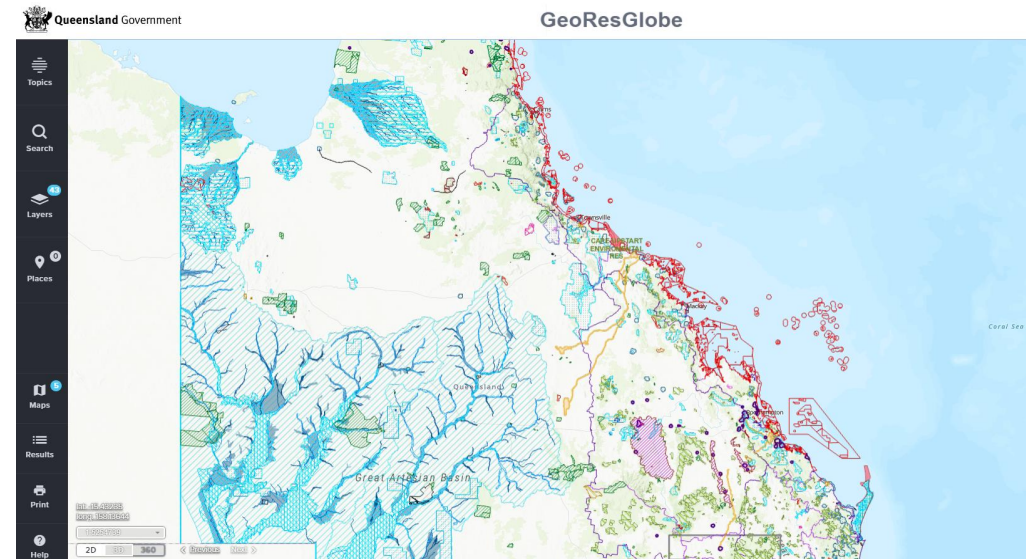


# Key Dates

- **Initial Release** – July 2019 – so available *now*:  
  
<https://georesglobe.information.qld.gov.au>
- **Release 2** – Early October 2019
- **Switch off MinesOnlineMaps** – planning end of October 2019
- **Training** – if sufficient numbers can train in Mt Isa, otherwise will adopt a train the trainer approach with nominated Mt Isa staff member (October).

# Highlights

- Larger Map
- Improved **Print** functionality
- Ability to **limit the Legend** to map extent on screen and in Print
- New **Search** options
- Detachable **Results** table
- Direct links to Resource Authority Report
- Improved **Advanced Intersect** Tool
- **3D** and **360** mode
- **Past Imagery** tool
- **Timeline** for Historic Permits
- Easily **save and share** maps for online and offline use
- Greater control over the configuration of Topics and Layers



# GeoResGlobe Video

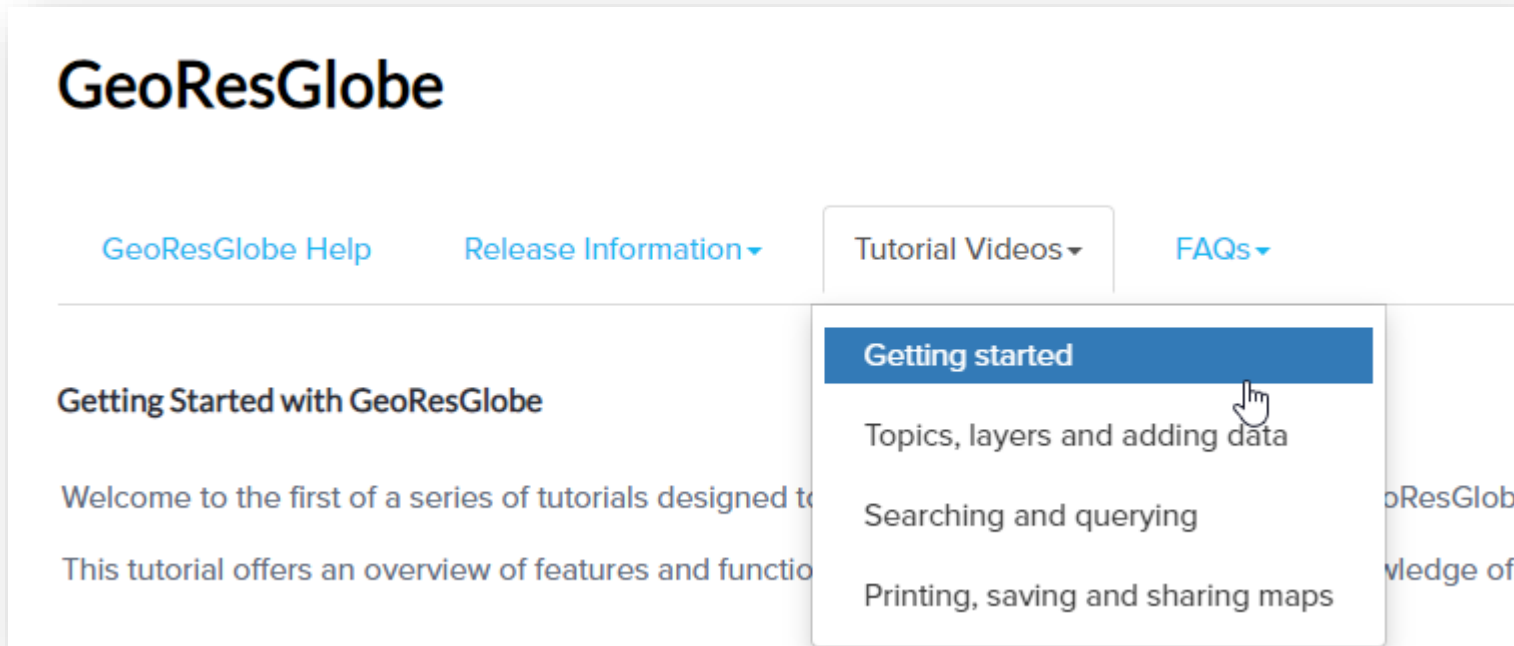


<https://youtu.be/1hoWq1MYuvU>



# Help and support

- Video tutorials are available in the Help and also FAQs
- Please email [opendata@dnrme.qld.gov.au](mailto:opendata@dnrme.qld.gov.au) if you need support



# GeoResGlobe URL

<https://georesglobe.information.qld.gov.au/>

The screenshot displays the GeoResGlobe web application interface. At the top left, the Queensland Government logo is visible. The main title "GeoResGlobe" is centered at the top. A "Login or Sign Up" button is located in the top right corner. The interface features a sidebar on the left with navigation options: Topics, Search, Layers (with a notification badge), Places, Maps, Results, Print, and Help. The main map area shows a geographical view of Queensland, Australia, with labels for the Timor Sea, Gulf of Carpentaria, South Pacific Ocean, and Coral Sea. Major cities and towns are marked, including Cairns, Townsville, Mackay, and Brisbane. The map also shows the Northern Territory to the north and the Great Sandy Desert, Gibson Desert, and Simpson Desert in the west and south. A coordinate box at the bottom left displays the following information: lat: -25.07689, long: 125.38854, 1:9876794, Great Victoria Desert, and map style options for 2D and 3D. Navigation controls like "Previous" and "Next" are also present. At the bottom of the interface, the text "Powered by Esri" is visible.

# Geoscience Data Modernisation Project

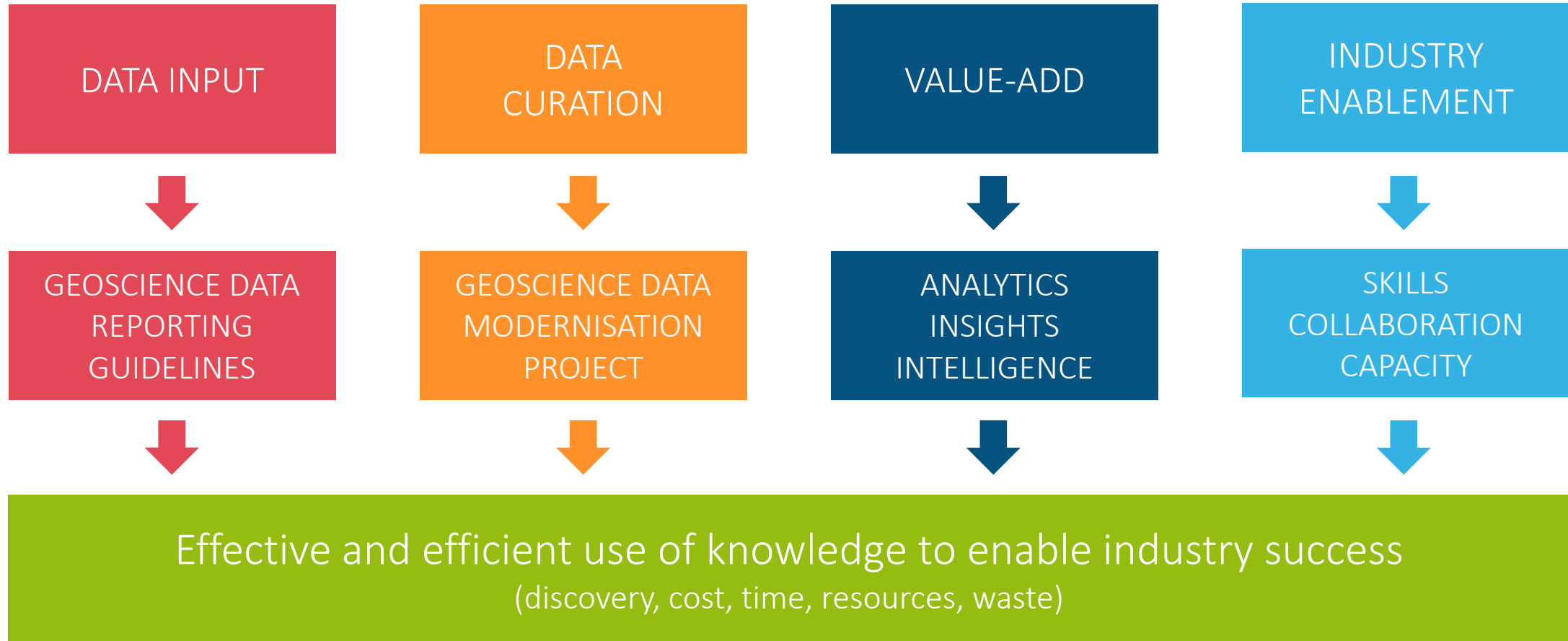
- Current state

- The availability, quality, discoverability and usability of geoscience data held in government data repositories is not adequate to enable industry exploration success.

- Future state

- The geoscience data ecosystem in Queensland – the technology, systems, processes and capability – is optimized to enable the full value of data to drive exploration success - measured in terms of discovery rate, efficacy and efficiency.

# Data-Driven Exploration



# Data Lake Concepts



Find insights in data



Interact with the data via spatial, textual, graph, 3D



DATA VISUALISATION

DATA ANALYTICS

MACHINE LEARNING



AI that learns from data, and identifies patterns & insights

Optimise, enhance, cleanse & curate data



DATA PROCESSING

DATA ACCESS



Human, computer & cloud data access

Index all digital & physical data



DATA CATALOGUE

Store every piece of data as an object



DATA OBJECT STORE

# Data Catalogue Concepts

## DATA CATALOGUE

A single catalogue of all data – digital, physical, federated

### STANDARDISED DATA SCHEMAS

- A DCAT2 master schema to describe all data objects
- Extensible geoscience data schemas
- Schema validations

### CONTROLLED VOCABULARIES

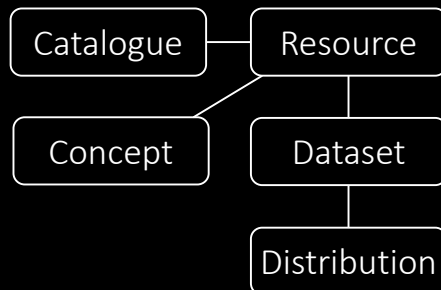
- A standard way to describe objects & their relationships
- Covers reference data, lookup lists, master data
- Preferred and variant terms

### PERSISTENT IDENTIFIERS

- Globally unique identifiers
- Auto-provisioned e.g. IGSN for samples
- Alternate identifiers for historical data identities

### LINKED DATA

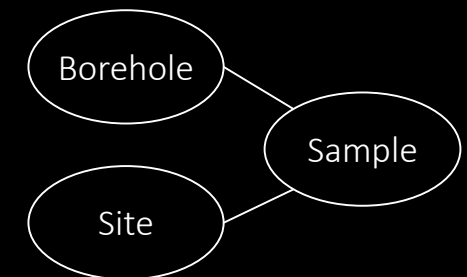
- Connects related data that wasn't previously linked
- Subject-predicate-object
- Human and machine-readable



Vocabulary: Rock Types

- igneous
  - Adakite
  - Alkali feldspar granite
  - Basalt
    - 'A'a
    - Pahoehoe

[//pid.geoscience.gov.au/sample/QG123](http://pid.geoscience.gov.au/sample/QG123)



# GDMP Pilot

- GDMP industry pilot was released June 30<sup>th</sup>.
- Focussed on seismic and geochemistry data
  - 800+ seismic surveys (2D and 3D exploration data)
  - Complete geochemistry database
- 12Tb archive
- 5+Tb downloaded in the last 6 weeks

The screenshot displays the Queensland Government website for the Department of Natural Resources, Mines and Energy. The page features a navigation bar with links for Home, Datasets, Reports, Boreholes, Organisations, and About, along with a search bar. The main content area includes a 'GSQ Data Lake Pilot' section with a photo of a rocky landscape and a 'Welcome to the Geological Survey of Queensland' message. To the right is a 'Search data' section with a search input field containing 'E.g. geophysics' and a search button. Below the search bar are 'Popular tags' for AGSS, Airborne, and Electromagnetic. Further down are 'Quick links to datasets' for Airborne Geophysics, ASTER, Company Reports, Geochemistry, Geophysics, Gravity, Hyperspectral, Magnetotelluric, MinOcc, SEEBASE, Seismic Survey, Stratigraphic Drilling, and Surface Geology. The bottom section is divided into two columns: 'GSQ Showcase Products' and 'GSQ Latest Datasets'. The 'Showcase Products' column lists the 'Super ISA Basin Seismic Data Package' and the 'Lawn Hill Cobalt Data Signatures Data Package'. The 'Latest Datasets' column lists three datasets: 85003 BECKER 2D 1985, 95124 SQ01 NORTH NACCOWLAH 3D 2001, and 95316 CPSAN12C CUISINIER NORTH 3D 2012.



# Department of Natural Resources, Mines and Energy

## Home / Datasets

### Filter by location Clear



Map tiles by MapBox, under CC BY 3.0. Data by OpenStreetMap, under CC BY SA.

### Tags

Geochemistry **7275**

Seismic **1264**

### Formats

8,539 datasets found

Order by: Relevance

### WALFORD CREEK 2D 2018 Seismic Survey

2018 2D Seismic Survey conducted as part of the Collaborative Exploration Initiative (CEI008).

ZIP

Seismic

### SQ98 Seismic Survey

1998 2D seismic survey

ZIP

SHP

TAB

Seismic

<http://horizon.gsq.digital>





# Discussion



# **Upcoming Events - Brisbane**

**Digging Deeper Technical: 5th Dec 2019**

**Digging Deeper Futures: Feb 2020**

**Drinks & Dinner: Isa Hotel from 6pm**