



Department of **Mines,**
Petroleum and Exploration

Guidelines

Guidelines for Mineral Exploration Reports on Mining Tenements

**Gazetted
October 2025**

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I hereby authorise the publication in the Government Gazette of these guidelines in accordance with Regulation 96B of the Mining Regulations 1981.



Chris Shaw,
Director General

6 October 2025

Department of Mines, Petroleum and Exploration October 2025

Part A: Statutory requirements

Purpose of the guidelines

The guidelines are designed to assist holders of mining tenements in Western Australia in the preparation and submission of mineral exploration reports to comply with section 115A of the *Mining Act 1978* (Mining Act).

As defined by section 115A(1) of the Mining Act, a mineral exploration report is a report containing records of the progress and results of:

- a) programmes involving the application of one or more of the geological sciences;
- b) drilling programmes; and
- c) activities involving the collection and assaying of soil, rock, groundwater and mineral samples that have been carried out in the search for minerals during the reporting period.

In accordance with section 115A (2) and (3) of the Mining Act, a mineral exploration report must be filed with the Department of Mines, Petroleum and Exploration (the department) in the prescribed manner and be in the form and contain the information required in the formats and standards as set out in these guidelines.

These guidelines are gazetted with the approval of the Director General of the department and replace the previous guidelines gazetted from 15 July 2019. It is the responsibility of the tenement holder/operator to file a mineral exploration report that complies with the reporting requirements under the Mining Act, including these gazette guidelines.

All reports should be complete and self-contained. Reports may cross-reference previously submitted reports for data only if the referenced report has been released to open file. All data related to the work described in the report must be included with the report.

Online submission of a mineral exploration report was introduced in March 2015 and it is encouraged that you lodge your mineral exploration report via the online lodgement system found on the department's website at: www.dmpe.wa.gov.au.

Tenements for which mineral exploration reports are required

It is the responsibility of the tenement holder to ensure that full details of all exploration activities carried out on the following tenement types are included in the reports irrespective of whether the exploration was undertaken by the holder/operator, consultant, joint venture partner or any other party.

- Exploration licences (E)
- Mining leases (M)
- Prospecting licences (P)
- Retention licences (R)
- Residual 1904 Mining Act tenure

Mineral exploration report may not be required

A mineral exploration report may not be required where only general prospecting activities have been undertaken on prospecting licences and mining leases; and the expenditure has been claimed under 'Prospecting and/or small scale mining activities' (Attachment 2 of the Form 5 Operations Report).

The filing of mineral exploration reports

In accordance with section 115A(2), the holder of a mining tenement shall file a mineral exploration report, or cause a mineral exploration report to be filed:

- a) in conjunction with an operations report in such circumstances as are set out in these guidelines; and
- b) whenever required to do so by the Minister by notice in writing.

Annual mineral exploration report

An annual mineral exploration report for each tenement must be submitted each year, by the due date, where exploration has taken place. All work undertaken in the year must be included.

Company prospectuses and annual financial reports will not be accepted as mineral exploration reports. Australian Stock Exchange (ASX) releases should not be submitted. All relevant information from ASX releases should be provided in the annual mineral exploration report.

Partial surrender report

A partial surrender mineral exploration report must be submitted whenever part of a tenement is surrendered either voluntarily or compulsorily and must contain all exploration work, or mining activities, undertaken on the surrendered portion/s of the tenement since the date of grant. The content of the report should cover the period of tenure and not just the final year.

Written authorisation to release previous annual mineral exploration reports containing information on the whole tenement may be submitted in lieu of a partial surrender report.

If no exploration or mining activities have been carried out on the surrendered area since grant, then written confirmation of this is required in lieu of the report.

For a tenement that forms part of a combined reporting group, failure to submit a partial surrender mineral exploration report by the due date may result in all relevant annual mineral exploration reports being released to the public, including information on live tenure.

Surrender report

A surrender mineral exploration report must be submitted when a tenement is surrendered, has expired or is forfeited. The report must contain all exploration work carried out and data collected on the tenement since the date of grant, unless all previous information and data are released to open file.

Where an exploration licence, a portion of an exploration licence (E), or a prospecting licence (P) has been converted to a mining lease (M), a surrender report is not required for the retained ground. However, if a portion of the tenure has been dropped, a surrender report is required.

If the underlying tenement is surrendered or expires prior to the date of grant of the overlying mining lease, a surrender report must be submitted as there is a break in tenure and the conversion application is no longer valid.

Written authorisation to release previous annual mineral exploration reports containing information on the surrendered tenement/s will be accepted in lieu of a surrender report. This may also apply to tenements that form part of a combined reporting group.

If no exploration has been carried out on the surrendered tenement since the date of grant, then a letter confirming this is required in lieu of the report.

If any part of a combined reporting group is surrendered, a separate surrender report must be submitted detailing all work undertaken on the surrendered portion of the group. If more than one tenement is surrendered at the same time, a single written report describing the work undertaken on those tenements will suffice.

For a tenement that forms part of a combined reporting group, failure to submit a surrender report by the due date may result in all relevant previous annual mineral exploration reports being released to the public, including information on live tenure.

If diamond drilling has taken place on a surrendered tenement, the description of drilling work in the report must contain the storage location and current ownership of the drillcore as the department may request some of the core as reference material for the Core Library. Companies are encouraged to donate historic core from surrendered tenements, but agreement must be reached with the department first.

Combined reporting

The holder of, or agent for, a group of granted tenements may apply for Ministerial approval to submit one combined annual mineral exploration report on a common date for a group of contiguous tenements that are being worked as one exploration project.

As approval for combined reporting establishes a group for the purpose of applying for expenditure exemptions under section 102(2)(h) of the Mining Act, the expenditure history of individual tenements may be taken into account when a combined reporting request is being considered.

A combined mineral exploration report will not be accepted unless prior combined reporting has been approved.

Application for combined reporting

An application for combined reporting must be submitted via the 'Application form for combined reporting' (see page 7) and must be accompanied by the relevant information as detailed on the form. The combined reporting form is also available on the department's website.

An application for combined reporting may be approved if:

- there is a common geological target;
- the tenements are contiguous (or nearly contiguous) and do not extend over large areas;
- all tenements have the same holder or the holder/operator has the legal ability to acquire at least a controlling interest in all tenements in the group; and
- all overdue reports on individual tenements have been submitted.

Applications to include additional tenements into granted groups, or vary reporting dates, must be made using the combined reporting application form. Additions to or variations of dates to combined reporting groups will be considered in the same way as new applications.

An application to include a tenement must also be made using the combined reporting application form where a mining lease is granted over land previously subject of a prospecting, retention or exploration licence, and that mining lease is sought to be included in the combined reporting group. (e.g. ss 49, 67 and 70L of the Mining Act).

Removal of tenements from a combined reporting group may be requested by the holder or operator at any time.

An approval for combined reporting does not remove the obligation to complete the Form 5 Operations Report (annual expenditure statement) for each individual tenement in the group. The form must be submitted to the department within 60 days after the anniversary date of each individual tenement.

Cancellation of a combined reporting group

The Minister may cancel combined reporting for a group for, including but not limited to, the following reasons:

- Combined annual mineral exploration reports are not submitted by the approved due date.
- Combined groups no longer meet the requirements.
- Administrative purposes (e.g. a new number will be issued).

Application form for combined reporting

List of tenements and holder/s:

☐ **New Application**
☐ **Amendment to group No.**

/

Name of operator:

Address:

Name of contact:

Telephone No:

Email:

Name of tenement group/project:

12 month period covered by the combined: report:

From:

To:

Submission date for combined report:

No later than 90 days after end of reporting period.

Target commodity:

☐ Gold

☐ Copper/lead/zinc

☐ Uranium

☐ Mineral sands

☐ Iron

☐ Nickel

☐ Coal

☐ Other (specify)

List of tenements and holder/s:

Tenement No.	Holder	Tenement No.	Holder

Attach list if insufficient space

To be attached:

☐ **Map showing all tenements in group and generalised geology**

(also showing pending tenements if inclusion may be applied for after grant)

☐ **Proof of common ownership**

(if the operator is different from tenement holder or if the tenements are held in different names)

☐ **Justification**, if tenements are not contiguous

☐ **Justification of group size**
(if the group is >300 km² in designated mineralised areas – or >1000 km² in non-mineralised areas)
☐ **Any overdue reports on individual tenements**

Consent is requested to submit a combined mineral exploration report each year for the group of tenements described above.

Signed:

Date:

Send application: Via email to: wamex.combinedreport@dmpe.wa.gov.auVia post to: Executive Director Geological Survey and Resource Strategy
Department of Mines, Petroleum and Exploration
100 Plain Street, East Perth WA 6004

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Submission dates

An operations report under regulation 16(1), 22(1), 23E, 32(1) of the Mining Act is required to be filed within 60 days of each anniversary, surrender, forfeiture or expiry date of the relevant tenement. Therefore, in accordance with section 115A, a mineral exploration report is to be filed in conjunction with an operations report as set out below:

- An Annual Mineral Exploration report must be submitted no later than 60 days after each anniversary date of the commencement of the tenement.
- A Partial Surrender Mineral Exploration report must be submitted no later than 60 days after the surrender date of part of the tenement.
- A Surrender Mineral Exploration report must be submitted no later than 60 days after the surrender, expiry or forfeiture of the tenement.
- A Combined Annual Mineral Exploration report must be submitted on the agreed combined reporting date.

An extension of time to file a mineral exploration report will not be granted.

Report compliance

Any report that does not comply with these guidelines, in form and content, must be corrected by the tenement holder within 30 days of a request from the department.

Reporting requirements will not have been met until the corrections, and any missing data, have been received and accepted by the department.

Where a tenement holder has not complied with the requirements of section 115A of the Mining Act for the filing of a mineral exploration report, forfeiture proceedings may be initiated.

In the case of combined mineral exploration reports, all tenements in the group may be liable for forfeiture if requirements have not been met.

Form 5 Operations Report

The Form 5 Operations Report, or expenditure statement, is submitted on a Form 5. A Form 5 must be submitted for each tenement held within 60 days after the anniversary date of the tenement.

The Form 5 is not the annual mineral exploration report.

An annual mineral exploration report may not be required when only prospecting and/or small-scale mining have been claimed on Attachment 2 of the Form 5.

Confidentiality

All information in annual mineral exploration reports will remain confidential for five years, at which point the report is eligible for release to open file under regulation 96(4) (the Sunset clause) or until three months after the surrender, forfeiture, expiry or cancellation of the tenement.

All partial surrender and surrender mineral exploration reports will be released to open file three months after the date of surrender, forfeiture, expiry or cancellation of the tenement.

Copyright

Regulation 96A relates to the tenement holder authorising or attempting to obtain authorisation from the copyright owner for release of information contained in a mineral exploration report.

State government use of copyright material is authorised in Australia under a statutory licence (*Copyright Act 1968*, sections 182B–183E).

Regulation 96A(2)(c) provides that if appropriate authorisation cannot be obtained from the copyright owner, then those sections of the report where the holder does not own copyright should be clearly marked.

In addition, reports should not include any material that is prohibited from release by other laws (e.g. some aerial photos, some satellite imagery or data from technology embargoed by the US International Traffic in Arms Regulations).

Drillcore

Under regulation 96D of the Mining Regulations 1981, the holder of a mining tenement must not destroy or dispose of drillcore obtained from the mining tenement unless the holder has given the Minister written notice of their intention to destroy or dispose of the drillcore. The department must be given a minimum of three months written notice before the disposal of any core. Once notice of the intention to dispose of core has been received the department may request acquisition of the core for storage at one of the core libraries.

Upon the relinquishment or cancellation of a tenement, all drillcore no longer needed by the tenement holder must be offered to the department.

The core libraries contain a selection of representative drillcore for the benefit of explorers and other researchers.

Offers of core should be directed to: corelibrary.submissions@dmpe.wa.gov.au or discussed with the Core Library coordinator.

The '[Guidelines for the submission and delivery of drillcore](#)' are available on the department's website.

Thin sections and paleontological specimens

The Geological Survey of Western Australia (GSWA) maintains a collection of thin and polished sections as well as paleontological specimens. The submission of company samples for inclusion in this collection is optional. Samples no longer required by the company should be offered to the department, provided the location coordinates of the specimens are known.

For further information contact the Core Library coordinator.

Note that the guidelines do not apply to the following types of report:

- Mandatory environmental reports. For information on environmental reporting refer to the 'Environmental guidance and proformas page' on the department's website.
- Aboriginal survey reports — include a citation in the list of references only and do not submit these reports with mineral exploration reports.
- Mineralisation reports under section 74A of the Mining Act.

Part B: General requirements

Reports and all supporting data must be submitted in digital form. Details of types of information, data required and formats accepted are given in 'Part D'.

All files must be virus free and must have security settings allowing copying from, but not editing of, the document.

Reports must be written in English to acceptable Australian standards.

Online submission

It is recommended reports be submitted using the online lodgement system, accessible via the department's website, to ensure compliance and consistency.

Recommended file-naming convention

The department recommends that digital data should be submitted using the following file-naming convention. The file name should be no longer than 20 characters excluding the suffix.

The report file should include the following elements (see Table 1):

- project initials, tenement or combined report number (e.g. KP – Kryptonite Project, E63_200, or C316_99);
- type of report (e.g. A – annual, P – partial, S – surrender);
- year of report (e.g. 2025); and
- file extension (e.g. .pdf).

The tabular data files should include the following elements (see Table 1):

- project initials (e.g. KP, KP_E63_200 or KP_C316_1999);
- template name (e.g. WASL4, WADG4, WADL4, WADS4, or WASG4);
- data type initials (e.g. COLL – collar, ASS – assays, SURV – survey, GEO – lithology, WATER – water, or appropriate abbreviations for other down hole events, SURF – surface geochemistry);
- year of report (e.g. 2025); and
- type of report (e.g. A – annual, P – partial, S – surrender).

Table 1: Examples of the file-naming convention

Description of file	Project name or tenement / combined reporting number	File name
Suggested file names for reports		
Kryptonite 2014 Annual Report	Kryptonite project	KP_2025A.pdf
Annual report for a tenement	E63/200	E63_200_2025A.pdf
Partial surrender report for a tenement	E63/200	E63_200_2025P.pdf
Surrender report for a tenement	E63/200	E63_200_2025S.pdf
Annual report for a combined reporting group	C316/1999	C316_99_2025A.pdf
Suggested file names for tabular data		
Drilling location file for 2024/2025 data	Kryptonite project	KP_WASL4_COLL2254A.txt
Geochemical analysis for the drillholes	Kryptonite project	KP_WADG4_ASS2025A.txt
Downhole survey data for the drillholes	Kryptonite project	KP_WADS4_SURV2025A.txt
Downhole geological data for the drillholes	Kryptonite project	KP_WADL4_GEO2025A.txt
Surface sampling data including geochemistry and mineralogical data	Kryptonite project	KP_WASG4_SURF2025A.txt
Data on water intersected whilst drilling	Kryptonite project	KP_WADL4_WATER2025A.txt
Geological codes for downhole lithology	Kryptonite project	SmallTimeLithCodes.pdf

Part C: Structure of mineral exploration reports

Annual reports

A mineral exploration report means a report containing records of the progress and results that have been carried out in the search for minerals during the reporting period, including:

- programmes involving the application of one or more of the geological sciences;
- drilling programmes; and
- activities involving the collection and assaying of soil, rock, groundwater and mineral samples.

A mineral exploration report shall consist of the following parts:

- a) The written text of the report in Portable Document Format (PDF) (see Part D) describing all the activities undertaken on the tenement during the reporting period. This section may also include tables, plans and figures. When using online lodgement a PDF document will be generated.
- b) Digital data (in the prescribed format – see Part D) of any geoscientific activities undertaken. This includes, but is not limited to, drilling, geochemical or geophysical surveys, geological mapping, computer modelling and resource calculations.
- c) Other appended material, for example reports detailing petrography, mineral resources, or reports written by independent geological consultants.
- d) Verification List of all documents submitted to the department (see Appendix 3).

Partial surrender reports

Partial surrender reports have the same basic structure as annual reports, however, they must contain a detailed account of all the exploration/mining activities undertaken over the area/s being surrendered since the grant of the tenement.

The tenement location map must also clearly indicate which part, or parts, of the tenement/s are being surrendered and which are being retained.

Surrender reports

Surrender reports have the same basic structure as annual reports and must contain a detailed account of all the exploration/mining activities that have been undertaken during the life of the tenement/s.

Where a single tenement or number of tenements is surrendered from a combined reporting group, all data acquired during the life of the tenement/s to be surrendered must be submitted with the surrender report.

Where a number of tenements have been surrendered from a single combined reporting group on the same date, a combined surrender report for the surrendered tenements may be submitted.

The written text of the report

The written text of the mineral exploration report must clearly identify which type of report it is:

- Annual
- Partial surrender
- Surrender

It must include the project name, the tenement number/s being reported on – including the Combined Reporting Number (if applicable) – and the period of time that the report is covering (e.g. 15 April 2025 to 14 April 2026). It should also include the operator's name, author and date written.

The text of the report should contain the following section headings:

- A) Bibliographic data sheet
- B) Table of contents
- C) Introduction
- D) Location and access
- E) Tenement details
- F) Geology
- G) Previous exploration activities
- H) Current exploration activities
- I) Conclusions and recommendations
- J) List of references
- K) Appendices

A verification list of all the files that make up the report must accompany the report if the report is submitted on CD.

A) Bibliographic data sheet

A bibliographic data sheet is essential if the report is not submitted using the online lodgement system.. For an example of a bibliographic data sheet, see Appendix 1. This is not required if the report is submitted using the lodgement system.

Table of contents

The table of contents must list all sections within the written report. It should also include a list of:

- Figures/plans
- Tables
- Appendices

B) Introduction

Give an introduction to the project tenement/s, the exploration rationale and objectives (e.g. the commodity sought) and the reasons the area is considered prospective for such mineral deposits.

C) Location and access

A brief description should be given of the location of the tenement/s in relation to the nearest town and how to access the tenement/s. Include a location map showing the relationship between the nearest town (or other major landmark) and the tenement/s.

Tenement details

A table setting out the details of the tenement/s including tenement number/s, holder, joint venture details, area, grant date, expiry date and expenditure commitment is required.

Tenement number	Holder/ JV details	Project name	Area (blocks)	Grant date	Expiry date	Expenditure
E04/1234	Jack Frost	Iceberg	52	12/08/2024	11/08/2029	\$90,000
P04/1234	L. Spring	Snowflake	170	23/05/2024	22/05/2029	\$6,900,000

A map showing the location and outline of the tenement/s must be included.

D) Geology

Describe the geological setting of the tenement/s regionally and locally. Include a geological map showing the geology within the tenement/s, including the outline of the tenement/s.

E) Previous exploration activities

Include a **brief** history of all exploration that has taken place in the area where the tenement/s is located – both by the current holder and previous explorers where known. A table format is acceptable.

F) Current exploration activities

Provide a detailed description of all exploration activities that have been carried out on the tenement/s during the reporting period, including but not limited to:

- office studies including data review, geological interpretation, assessment, target generation and prospectivity analyses;
- geological mapping;
- geophysical surveys;
- surface sampling;
- drilling;
- resource estimations (or revisions);
- mining; and
- any other activities involving the application of one or more of the geological sciences.

The information supplied must be supported by detailed figures and plans (e.g. a drillhole location plan).

Include a 'table of activities' setting out in summary what exploration was carried out on each tenement.

The table must include – but is not limited to – drilling, sampling, geological mapping and geophysical surveys where these have been carried out. For drilling and sampling include the following:

- For drilling
 - the type of drilling;
 - number of holes;
 - number of metres drilled;
 - number of samples; and
 - the grand total
- For surface sampling
 - the type of sample;
 - the number of samples taken; and
 - the grand total

Ensure the number of samples/drillholes/drillhole meterage in these summaries matches the drill/sample data files being submitted.

Data files containing results carried over from previous period/s (e.g. if assay results were pending at the time of the previous report) should clearly identify this data. Use the text fields in the table of activities to explain other discrepancies.

An example of a table of activities is given below.

Table 2: All exploration activities

Tenement	Drilling			Geochemistry	Geophysics		
	Diamond	RAB	Reverse circulation	Surface samples	Airborne EM	Gravity	Ground EM
M99/999	1 hole for 122.2 m (NQ)	26 holes for 1046 m		234 soil	477.7 line km	Approx 21km ²	–
E99/2023		1 hole – 48 m	33 holes for 4489 m	12 rock chip		–	Approx 15 km
Totals	1 hole for 122.2 m	27 holes for 1094 m	33 holes for 4489 m	246 samples	477.7 line km	Approx 21km ²	Approx 15 km

Provide results of all work undertaken. Include significant intercepts from drilling and any anomalous results considered worthy of note.

Where significant mineralisation is discovered, a section must be included in the report describing the discovery and its geologic setting in more detail.

It is also a requirement of the Mining Act S63(a) that all discoveries of minerals of economic significance are reported to the Minister for Mines and Petroleum. This may be done via email at: mineraldiscoveries@dmpe.wa.gov.au

I) Conclusions and recommendations

State the conclusions drawn from the exploration undertaken and recommendations for future work.

J) List of references

List all documents referred to in the report. For example:

- Smith, F. 2010: *Flora and Fauna of the Chrysanthemum Region*, Environ Surveying Company.

K) Appendices

Submit reports on mineral exploration activities prepared by consultants as appendices to the mineral exploration report, preferably as separate documents that are not part of the text of the report itself.

Verification list

A verification list is only required for reports submitted on CD. This is a check list of all files submitted to the department that make up the report. See Appendix 3 for an example of a verification list. Ensure that all files submitted to the department with each report are included.

Part D: Required information and formats

Report text

Online submission of mineral exploration reports was introduced in March 2015 and use of the system is encouraged to ensure compliance and consistency. The lodgement system can be found on the department's website.

Documents, including figures, tables and appendices, must be submitted in PDF (e.g. Adobe Acrobat), with security settings allowing copying from, but not editing of, the document. The file must be a text (not image) PDF.

PDF files created by software other than Adobe Acrobat must be able to be read by Adobe products. Only provide PDF files that are legible, use common standard fonts and maps, and images that are readable. Avoid use of non-standard fonts as viewers of the documents may not be able to display them.

NB: Some software will create a PDF which looks correct in Adobe Reader, but the special fonts will show as meaningless characters when the text is copied and pasted.

Do not embed any files as attachments within the text PDF. All associated files must be separate.

Locational information and maps

The GDA2020 datum has been adopted to allow for closer integration with international navigational systems such as GPS. For grid-based map coordinates (Eastings and Northings), the Map Grid of Australia (MGA) is related to the GDA2020 datum and replaces the previous Map Grid of Australia (MGA) and Australian Map Grid (AMG) coordinates that related to the GDA94, AGD66 and AGD84 datums.

All maps and locational **raw data** must therefore record the following:

- geodetic datum (GDA2020);
- whether coordinates are geographic (latitude and longitude) or projected (Eastings and Northings);
- zone for projected coordinates, e.g. 51;
- The projection, e.g. Universal Transverse Mercator (UTM); and
- All azimuths in directional downhole surveys must be given in relation to True North (i.e. gyro) or Magnetic North (i.e. compass), (see Appendix 2, Example 5).

Locational data given in **local grids** only will not be accepted.

For more information concerning geographic datums, see the Geoscience Australia website at: www.ga.gov.au

Maps, plans, figures and photographs

All maps, plans, figures and photographs to be included within the text of the report for online submission must be in Joint Photographic Group (JPEG or JPG) or Portable Network Graphics (PNG) format.

All maps, plans, figures and photographs submitted as separate appendices should be in PDF (refer to Table 3). They must be readable and of good print quality and colour. The integrity of the original plan, or image, must be maintained. The resolution must be at least 300 Dots Per Inch (DPI or dpi). Fine text, such as coordinates on map axes, must be legible.

For larger plans, or where PDF is not considered appropriate, raster image formats of JPEG or Tagged Image File (TIFF or TIF) are acceptable.

All maps and plans that accompany a report must include the following:

- a metric scale bar;
- the geodetic datum used – GDA2020 (Eastings and Northings; or latitude and longitude); and
- location coordinates on the axes of the map.

For a geology map, a clear and comprehensive legend and identification symbols for all rock units displayed (preferably GSWA symbols) are required.

Acceptable formats

The following table lists the most common components of a mineral exploration report and formats that are acceptable.

Table 3 is not an exclusive list. With the rapid advancement of technology, other formats will inevitably become available in the future or may already exist. If unsure contact the department.

Table 3: Examples of acceptable formats for digital data

Data type	Description	Format	Parameter	Suffix
Report text	Text, documents, figures, etc.	Portable document format (PDF) with thumbnails (e.g. Adobe Acrobat)	Normal, allow copy but not edit	.pdf
Maps, plans, figures	Files of maps, plans, figures. Maps must be at original scale	PDF (preferred)	Reproducible at 300 dpi, 24 bit	.pdf, .tif, .jpg, .jpeg, gif, .png
Photographs not embedded in report text	Core photographs, aerial photographs, etc.	GEOTIFF/TIFF (colour) PDF, JPEG, PNG	Reproducible at 300 dpi	.tif, .pdf, .jpg, .png
Tabular data	Point locations, geochemistry, heavy mineral, diamond indicator and drilling data	Tab-delimited ASCII	Zip files by activity, e.g. Drilling.zip	.txt

Data type	Description	Format	Parameter	Suffix
GIS data	Data in GIS format	ESRI shape files MapInfo tab files		.shp, .shx, .tab, .map, .id, .dat
Video clips	Fly-throughs, etc.	Video standards MPEG AVI		.mpg, .avi
3D models	3D model data	Export model in CSV format	Must include: Block model origin in X, Y and Z Block model parent cell size in X, Y and Z Minimum sub-cell sizes in X, Y and Z	.csv
Geophysics (other than seismic)	Located raw and processed data (corrected and levelled)	Fixed column ASCII with description and processing report	Includes ASEG GDF2 or ASEG-ESF	.dat, .asc, .gdf, .esf
Geophysical and other remotely sensed images	Images derived from geophysical / remote sensing surveys (e.g. TMI, Bouguer, radiometrics, Landsat 5 or 7)	GEOTIFF/TIFF, ECW, JPEG, GIF, PDF, EPS, PNG	Reproducible at 300 dpi	.tif, .ecw, .jpg, .gif, .pdf, .eps, .png, .jp2
Seismic data (Refer to Petroleum Data Submission Guidelines for further information on the department's website.)	Raw Shot Data – correlated and uncorrelated Processed data Navigation data Processed sections Images of processed sections	SEG D SEG Y UKOOA P1/90 PDF, TIFF or CGM+ with metadata Geophysical image formats as above	(line number, shot point number)	.sgd .sgy .uka .pdf, .tif, .cgm, .jpg, .gif
Petrophysical and geophysical log data (refer to Petroleum Data Submission Guidelines for further information on the department's website)	Raw and processed wireline and MWD data (downhole geophysical logging)	DLIS LIS LAS delimited ASCII (format must be explained) WELLOGML (POSC standard)	As defined by latest Industry Standard	.dlis, .lis, .las .asc, .xml
	Log plots	PDF, TIFF, JPEG, GIF PDS.	As above	.pdf, .tif, .jpg, .gif, .pds, .mta
	Processed downhole velocity data	SEG Y		.sgy
Hyperspectral/ Remote sensing data Point data	Reflectance data	Georeferenced FOS, ASD, SDF, SDS		fos, asd, sdf, sds
Image data (see definition in Spectral section)	Reflectance data	Georeferenced BSQ,BIL or BIP image format		bsq, .bil, .bip
LIDAR data	Raw data	Georeferenced LAS, CSV or xyz files		.las, .csv, .xyz

Raw tabular data, metadata and templates

Any tabular data including, but not restricted to, drilling, surface geochemistry and mineralogical observations must be submitted **in tab-delimited ASCII .txt files that include their 'metadata' at the top of the ASCII file**. Do not delete any header rows even if no data has been entered into the fields associated with them.

In **'Example 1'** (on following pages), the metadata for the surface samples is the information recorded on lines H0002 through to H1007. It is data that enables the raw data to be imported into a database. The raw data is identified by the 'D' for data in the first column under line H1007.

Lines H1000 to H1007 refer to the individual column headers for the data. Note that the H1000 (column headings), H1001 (units of measure) and H1002 (assay type, where appropriate) are critical.

The H1000 row contains all the raw data column headings. In the case of the assay files, each element analysed must be listed across the H1000 row. It is not acceptable to list all the elements vertically in a single column. Where a report is submitted online, zip all tabular data files by activity, e.g. 'Drilling.zip'.

New smart templates

Smart templates have been developed with built-in checks that highlight mistakes, save time and reduce risk. They are available via the 'Data and Software Centre' on the department website.

Drilling

Details of the metadata headers required for the drilling templates are explained in Table 5. For examples of how the drilling data looks in the various templates see Appendix 2. The four main templates are as follows:

- 1) SL4 Surface Location (Collar)
- 2) DG4 Downhole Geochemistry (Assay)
- 3) DL4* Downhole Logging (Geology, or other downhole event)
- 4) DS4 Downhole Survey

*Note the DL4 template is also used for other downhole events such as magnetic susceptibility, water, veining, weathering, etc.

Surface geochemistry

Surface sampling data must indicate sample type and sampling method, e.g. sieved -80 mesh.

For surface geochemistry, the SG4 template is used. The same metadata headers are required (see Table 5 and Example 1). Note: For surface geochemistry only, the sample locations and assays must be submitted in the same text (.txt) file.

Data file housekeeping

Prior to submission:

- Ensure that all sample numbers within an assay file are unique identifiers and are not repeated in that file.
- Review data files and remove any duplicated data. This applies to both columns containing multiple copies of the same assay results and data in columns containing information already covered in the metadata rows. For example, the assay method should be stated in the metadata rows rather than in a separate column.
- Remove any QAQC data from the assay files and submit in the separate QAQC template.
- Check all critical metadata fields are populated.

Example 1: Surface Geochemistry Template — SG4

H0002	Version	4 *	<i>*This refers to the Template version</i>							
H0003	Date_generated	12-Nov-24								
H0004	Reporting_period_end_date	28-Sep-24								
H0005	State	WA								
H0100	Tenement_no/Combined_report_no		E70/314							
H0101	Tenement_holder	Big Time Mining Ltd								
H0102	Project_name	Kryptonite*	<i>*Critical – must have project name</i>							
H0106	Tenement_operator	Small Time Mining NL								
H0150	250K_map_sheet_number	SH 51-10								
H0151	100K_map_sheet_number	3236	3336	<i>Tab across, do not repeat headers</i>						
H0152	50K_map_sheet_number									
H0153	25K_map_sheet_number									
H0200	Start_date_of_data_acquisition	29-Sep-23								
H0201	End_date_of_data_acquisition	28-Sep-24								
H0202	Data_format	SG4*	<i>*Critical, e.g. SG4 – Surface Geochemistry</i>							
H0203	Number_of_data_records	6*	<i>*Must match number of Data rows (D) below</i>							
H0204	Date_of_metadata_update	12-Nov-24								
H0305	SurfGeochem_Data_File	KP_WASG4_SURF2024A.txt								
H0308	File Verification List	KP_Verification_List_2024.txt								
H0319	SURFQAQC_data_file									
H0500	Feature_located	Surface Sample								
H0501	Geodetic_datum	GDA2020								
H0502	Vertical_datum	AHD								
H0503	Projection	UTM								
H0508	Local Grid Name									
H0530	Coordinate_system	Projected								
H0531	Projection_zone	51*	<i>*Zone is critical with projected coordinates</i>							
H0532	Surface_location_Survey_Instrument		GPS							
H0533	Surface_Location_Survey_Company		Small Time Mining NL							
H0538	Surface_Geophysical_Survey_Instrument									
H0539	Surface_Geophysical_Survey_Company									
H0600	Sample_Code	SOI	RKC							
H0601	Sample_Type	Soil	Rock Chip							
H0602	Sample_description	Soil Sample	Rock chip sample							
H0700	Sample_Prep_Code	SO31								
H0701	Sample_Prep_Desc	SO31:Fine pulverise to 75um								
H0702	Job_no	B40985								
H0800	Assay_code	AR	ICP-OES							
H0801	Assay_company	PH:Phlogiston Laboratories	BR:Brimstone Laboratories							
H0802	Assay_description	Aqua regia digest	Inductively coupled plasma - optical emission spectrometry							
H0900	Remarks	<i>Below: Headings – Sample ID, MGA_E, MGA_N and Sample_type are critical. Others optional</i>								
H1000	Sample ID	MGA_E*	MGA_N*	Sample Type	Au	Ag	As	Cu	Pb	Zn
H1001	units of measure	metres	metres	NA	ppm	ppm	ppm	ppm	ppm	ppm
H1002	assay code from H0800				AR	ICP-OES	ICP-OES	ICP-OES	ICP-OES	ICP-OES
H1003	lower detection limit				0.01	0.01	5	0.1	0.1	0.1
H1004	accuracy	1	1	0	0.01	0.01	5	0.1	0.1	0.1
H1005	upper detection limit									
H1006	preferred laboratory result									
H1007	assay company id – when more than one lab is used				PH	BR	BR	BR	BR	BR
D	KPS001	392200	6589600	SOI	0.01	0.04	13	0.27	0.18	0.4
D	KPS002	392843	6581542	SOI	0.02	0.06	5	0.16	0.12	0.5
D	KPS003	392280	6584510	SOI	0.03	0.04	13	0.24	0.14	0.4
D	KPRK001	391954	6588800	RKC	0.01	0.03	12	0.24	0.17	0.4
D	KPRK002	391790	6588791	RKC	0.02	0.03	11	0.3	0.13	0.3
D	KPRK003	392306	6589861	RKC	0.01	0.03	36	0.19	0.17	0.3
EOF *	<i>*EOF=End of File. Add extra rows for data before EOF as needed.</i>									

EOF * **EOF=End of File. Add extra rows for data before EOF as needed.*

View the file in Microsoft Excel to check the alignment of the columns, then "Save As" – "Text (Tab delimited) (.txt)" from the pull down menu.*

** Ensure location column headings match the Geodetic datum, e.g. GDA2020 and GDA94 use MGA_N, whereas AGD84 uses AMG_N*

The pink text is for instruction only. Do not include in your data file.

Portable X-ray Fluorescence (XRF) analyses

Where portable XRF data has been collected, the following information should be supplied:

- Analytical data as downloaded from the pXRF (i.e. uncorrected data).
- Quality control data that can be used to validate pXRF data (i.e. analysis of reference materials, sample duplicates and analytical blanks).
- Spectral data as an attachment.

A discussion of the QAQC results should also be included in the report and should be in a separate file.

Data must be submitted on the appropriate template. For examples of downhole and surface portable XRF data files see Appendix 2, Examples 7 and 8. Text in bold indicates either additional information required for portable XRF files, or data that must be provided.

Costeans

For costeans, the data obtained can be accommodated in the templates either by considering the costean as a horizontal drillhole and using the drilling templates (SL4, DG4, DL4, etc.) or by giving locations for each individual sample along the costean and using the surface geochemistry template (SG4).

Mineralogical activities

In the course of diamond and mineral sands exploration, certain geochemical or mineralogical observations are made that do not conform to the normal drilling or surface geochemical practices. Wherever possible, the results of these observations must be reported on the standard reporting templates (see Appendix 2) and the following information should also be included:

- mineralogy;
- grain size fraction;
- analysis of indicator or other minerals; and
- the results of bulk sampling.

For diamond exploration, the laboratory data sheets containing the results of the visual observation of heavy mineral concentrates from surface samples must be included as an appendix to the report. Sample material (such as loam, alluvial, paleochannel and bedrock), sample method (such as hand-sample, drillcore) and sample weight (kg) or sample volume (L) must be reported for each sample. Observed concentrate weight (g), size fraction (maximum, minimum, mm) and the results of indicator mineral counts recovered must also be recorded (whether positive or negative) in the standard reporting template (SG4 – see Appendix 2, Example 9).

Microprobe or other quantitative analyses of individual indicator mineral grains obtained from heavy mineral concentrates must be reported using the surface geochemistry (SG4) template. Each grain needs to be numbered individually and the analytical method and associated sample location coordinates must be included.

As 'sample_id' must not be repeated in SG4 files, it is necessary to make the sample_id unique by concatenating the sample_id with the grain number and also the mineral species (if there is more than one mineral probed) e.g. AB1234_1_chr, AB1234_3_pyr.

If diamonds have been recovered, their size, whether micro- or macro-, and the definition used must be reported. Where known, a physical description of each diamond crystal should be provided.

Where drilling has been carried out during the course of diamond or mineral sands exploration, the usual drilling templates must be used.

Coal

Coal exploration also includes observations that vary from the usual drilling or surface geochemical practices. Wherever possible the results of these observations should be reported on the standard reporting templates. Where this is not possible, the data will be accepted in other formats.

It should be noted – there is an Australian standard, '**AS 2519-1993**: Guide to the technical evaluation of higher rank coal deposits' and a proposed Australian standard for coal logging, 'CoalLog – The Australian Coal Logging Standard v1.1' – both of which should be consulted prior to submitting coal data in annual or surrender mineral exploration reports.

The 'CoalLog Standard' should be used for the logging of the drillcore, particularly the lithology and associated information. However, the data must be submitted as ASCII tab-delimited text files with metadata headers as set out in the templates in Appendix 2 of these guidelines.

Quality control

Analyses of field and laboratory duplicates, standards and blanks must be included in a separate QA/QC file. The inclusion of analytical results of named standards, duplicate analyses of samples and laboratory blanks will assist in the evaluation of the quality of the data.

The QG4 template has the same structure and metadata as the geochemistry files SG4 and DG4 but should include:

Table 4: Quality control

Field name	Code	Description
Lab Job Number		a unique number used by the laboratory to identify a particular job
QA/QC Type:	FDup	field duplicate submitted to the laboratory
	LDup	duplicate generated and reported by the laboratory
	Std	general and certified standards
	Blk	laboratory blank
Standard ID		name of standard
Original Sample Number		original sample number for field duplicate

Results pending

Where downhole drilling **assay** results are not available at the time of reporting, they must be submitted in the following year's annual mineral exploration report and **must** be accompanied by the associated **collar file** containing hole locations.

Surface geochemistry results that are not available at the time of reporting, must be included in the following year's report.

Table 5: Required file-header information

Critical fields are highlighted yellow. All header numbers must be retained in the templates. Do not delete any even if there is no data associated with them.

Header number	Header field name (explanation in <i>italics</i>)	Examples of values
H0002	Version (Refers to template version.)	4
H0003	Date_generated	10/01/2025
H0004	Reporting_period_end_date	31/12/2025
H0005	State	WA
H0100	Tenement_no/Combined_report_no (When Combined_rept_no is used, individual tenement numbers must be included in the H1000 and D series, i.e. linking each record to a tenement.)	E70/314 or C316_2004
H0101	Tenement_holder	Big Time Mining
H0102	Project_name	Kryptonite
H0106	Tenement_operator	Small Time Mining
H0150	250K_map_sheet_number	SH5110
H0151	100K_map_sheet_number	3236, 3336
H0152	50K_map_sheet_number	3236 2, 3336 3
H0153	25K_map_sheet_number	
H0200	Start_date_of_data_acquisition (NB-do not use colons in dates)	01/01/2015, or 01-Jan-15 NOT - 01:01:2015
H0201	End_date_of_data_acquisition	31/12/2025
H0202	Data_format (the number refers to the template name and version.)	SL4 (no spaces)
H0203	Number_of_data_records (in this file)	7
H0204	Date_of_metadata_update	10/01/2015
H0300	Related_data_file (pointers to other files directly related to this file)	Title only, no file name in this record – leave blank
H0301	Location_data_file (H0301 must always contain the name and type of the file in which it is contained as a check against inadvertent file-name changes)	KP_WASL4_COLL2025A.txt
H0302	Lithology_data_file	KP_WADL4_GEO2025A.txt
H0303	Assay_data_file	KP_WADG4_ASS2025A.txt
H0304	Survey_data_file	KP_WADS4_SURV2025A.txt
H0305	SurfGeochem_data_file	KP_WASG4_SURF2025A.txt

Header number	Header field name (explanation in italics)	Examples of values
H0307	Lithology_code_file	KP_DrillingCodes.txt
H0308	File Verification List	KP_Verification_List_2025.txt
H0310	Water_data_file	KP_WADL4_WATER2025A.txt
H0311	Water data incl in lithology file	Yes/No
H0313	Alteration_data_file	KP_WADL4_ALT2025A.txt
H0314	Magsusc_data_file	KP_WADL4_MAG2025A.txt
H0315	Vein_data_file	KP_WADL4_VEIN2025A.txt
H0316	Recovery_data_file	KP_WADL4_CORE2025A.txt
H0317	Weathering_data_file	KP_WADL4_WEAT2025A.txt
H0318	DHQAQC_data_file	KP_WAQG4_DQAQC2025A.txt
H0319	SURFQAQC_data_file	KP_ WAQG4_SQAQC2025A.txt
H0320	Other event_data_file (Name appropriate to file content and numbering to be confirmed with GSWA if additional files are required)	KP_Other_data_file
H0400	Drill_code (All drilling codes used must be stated here. Where more than one type of drilling is used, an additional column stating the drilling type must be included in the H1000 and D series, i.e. identifying each row of data as applying to a particular drilling type)	RAB, AC, RC, DD
H0401	Drill_contractor (Drilling contractor used. If more than one, they must also be included in the H1000 and D series, i.e. identifying each row of data as applying to a particular driller)	Drill Faster Pty Ltd, Drill Well Pty Ltd
H0402	Description (Describe the drilling codes in the order they are shown in the H0400 record)	RAB: rotary air blast AC: aircore RC: reverse circulation DD: diamond drilling
H0500	Feature_located	Hole collar, Sample point
H0501	Geodetic_datum (datum used must be stated.)	GDA2020 or GDA94 or AGD84 or WGS84
H0502	Vertical_datum (If an arbitrary vertical datum has been used then this must be stated as Nominal.)	AHD or Nominal
H0503	Projection (Detailed as at right for a projected coordinate system – 'Non-Projected' for a geographic (Lat/Long) coordinate system.)	UTM , or MGA (if H0501 is GDA2020 or GDA94 or WGS84); or AMG (if H0501 is AGD66 or AGD84); or Non-Projected (if Lat/Long)
H0508	Local Grid Name (not accepted alone, datum must also be included at H0501)	Neutron grid
H0530	Coordinate_system (Projected – e.g. GDA2020, GDA94, AGD84, or AGD 86 or Geographic i.e. Latitude/Longitude)	Projected or Geographic

Header number	Header field name (explanation in <i>italics</i>)	Examples of values
H0531	Projection_zone (Zone specified for UTM; or 'non-projected' for geographic) (If more than one UTM zone is specified and this template file contains coordinates, an additional column specifying UTM zone must be included in the H1000 and D series, i.e. identifying each row of data as belonging to a particular zone) (NB – Zone number must match map sheet code.)	51 or Non-Projected
H0532	Surface_Location_Survey_Instrument (Where more than one instrument applicable to this particular template file is used, an additional column stating the instrument type must be included in the H1000 and D series, i.e. identifying each row of data as applying to a particular survey method)	DGPS
H0533	Surface_Location_Survey_Company	Super Surveying Pty Ltd
H0600	Sample_Code	Ssed, RAB, DD, COST
H0601	Sample_Type	Ssed: Stream sediments, RAB: RAB chips, DD: Diamond core, Cost: Costean
H0602	Sample_description (Describe field and pre-lab dispatch sampling methods)	Quarter core, half splits of cuttings
H0700	Sample_Prep_Code (Codes used for laboratory sample preparation for assaying)	S031
H0701	Sample_Prep_Desc (The description of lab sample preparation for each code. Where more than one laboratory is specified in H0801, list sample preparation details in order of H0801 lab listing, assuming one sample preparation method per laboratory. If more than one sample preparation method is used per laboratory, this must be indicated in metadata header and in H1000 series.)	S031: Fine pulverize to 75µm
H0702	Job_no/Batch_no (The laboratory job number. Where more than one laboratory is used, show job numbers in the order corresponding to the laboratories in H0801. If more than one job number has been assigned, this must be indicated in metadata header and in H1000 series.)	G37215, ADL20406
H0800	Assay_code (All laboratory assay codes used must be stated in the metadata. Where more than one type of assay is used, the assay code must also be included in the H1002 row)	FA50, IC587, AAS
H0801	Assay_company (The name and location of laboratory. Where more than one laboratory is used, each laboratory name must be preceded by an abbreviation code which is then used in the H1007 record to identify assay_code against laboratory)	PLP: Phlogiston Laboratories, Perth
H0802	Assay_description (Description of assay process in order of codes specified in H0800)	FA50=Aqua regia digest, fire assay determination, AAS=HClO4+HNO3+HF, atomic absorption spectrometry determination

Header number	Header field name (explanation in <i>italics</i>)	Examples of values
H0900	Remarks (Free text comments and remarks)	
	<i>Note that, in the H1000 series, the record name is not shown after the H1000 designator. Each record passes directly into field names, units and so on.</i>	
H1000	(Data field names)	MGA_E, Au1, Cu, Zn
H1001	(Units of measure for each dimensioned field – 'N/A' for fields where this is null)	m: metres; ppb: parts per billion; ppm: parts per million; %: percent
H1002	(Assay_code – specify for each analyte)	FA50
H1003	(Lower detection limit as units specified in H1001)	0.01
H1004	(Accuracy – specify for each dimensioned field using the units in H1001)	0.01
H1005	(Upper detection limit as units specified in H1001)	1000
H1006	H1006 (Preferred assay indicator (P) for preferred assay where several values are presented for a single sample, null for others. The "preferred assay" field must also be the first listed for that analyte)	P
H1007	(Assay_company_ID: where more than one laboratory is used, a code specified in H0801 identifies assay_code against laboratory)	PLP
D	(Raw Data)	

Geological activities

Geological activities could include, but are not limited to, data review/project evaluation, geological interpretation, consultants' studies, geological mapping (fact or interpretive), petrological/ mineralogical studies, geochronology, paleontology and target generation.

If a data review or project evaluation is reported, results to substantiate this work must be provided. Where open-file searches have been conducted, a table listing all WAMEX reports consulted must be provided. Copies of open-file reports should not be submitted.

If historical drilling or surface geochemistry results obtained from open file reports are included in a report, they must be clearly labelled as historic to avoid confusion with any drilling or geochemical surveys undertaken during the current reporting year.

Geological mapping

Geological maps must be provided at the original scale and contain a legend. They should be provided as PDF files separately as an appendix. Original mapping should be provided in GIS format as well as in PDF. Acknowledge the source of all geological information that is not the result of original work.

Petrography and mineralogy

Reports detailing petrographic, mineragraphic or other studies should be provided as separate appendices. The MGA or latitude/longitude locations of all samples must also be provided.

GIS

GIS data will be accepted in the proprietary formats. ESRI shape files and MapInfo tab files are preferred.

Where practical, the symbology of the GIS displayed data must be provided (e.g. ESRI layer files or legend file, or MapInfo suite of files (.map, .tab, .dat, .id) and JPEG files where images are rectified.

Metallurgical studies

Any metallurgical studies undertaken should be described in summary in the text of the report but not included in full. A citation of any documents detailing the work undertaken must be included in the list of references.

Remote and proximal sensing

Spectral data

For **point data** from:

- Drillcore, chip, or grab samples; e.g. HyLogger, HyChips
- ASD, Terraspec and PIMA surveys;

the following data are required:

- reflectance data (in FOS, ASD, SDF, SDS formats);
- metadata
 - instrument name, model number
 - sample medium
 - integration time
 - drillhole collar coordinates, survey and depth
 - sample location coordinates, and
- product summary table shown below.

Product name	Feature(s) extracted	Feature extraction type	Geological/mineralogical significance
e.g. White mica composition	2205 +/- 20 nm	Minimum wavelength	Mineralisation lies adjacent to compositional gradient

For **image data** from:

- a) Airborne imaging, satellite imaging, multispectral remote sensing,
- b) Drillcore imaging from proximal sensors including Specim (SisuRock), Hypspx (e.g. Short Wave Infrared SWIR320m- e) and Corescan (HCI-2)

the following data are required:

- reflectance data (in BSQ, BIL or BIP image format);
- ENVI or ER Mapper header files;
- instrument response function file (band centre wavelengths and full-width at half-height widths (if available));
- metadata:
 - instrument name, model number
 - image/profile specifications:
 - pixel size
 - number of pixels
 - number of lines
 - number of runs
 - number of blocks; and
 - area covered:
 - latitude/longitude coordinates of the block boundaries of large remotely sensed surveys; or
 - drillhole collar coordinates, survey and depth
 - data quantisation (byte, Integer *2, real, floating point, etc.)
 - calibrated units (e.g. reflectance *100, *10000)
 - gain conversion factors (if applied)
 - radiative transfer code (RTC) used to convert from radiance-at-sensor to reflectance/emissivity
 - assumptions used in RTC, including
 - aerosols (visibility in km)
 - EFFORT smoothing (yes/no)
 - geometric data:
 - along flight-line-only GPS information; and/or
 - NS-GPS roll-pitch-yaw image information (GLT files)
 - datum/projection
 - gain conversion factors (if applied)
 - date/time (GMT) of acquisition;
- Product summary table (example on previous page).

Where copyright prevents inclusion of data, maps or images, this must be stated and a representative stitched image or scaled interpretative plan included in lieu of the prohibited content.

Geophysical activities

Geophysical activities include, but are not limited to, gravity, radiometric, seismic, electric, electromagnetic and ground penetrating radar surveys as well as aerial photography and 'airborne reflectance surveys' such as LiDAR and hyperspectral scanning.

In addition to the survey data the following information must be supplied so that another operator can use the data:

- specifications of the survey and instruments;
- units of measurement and order of accuracy;
- conversion factors if any units are outside the SI system;
- date of survey;
- details of any contractor;
- location map showing the tenements, the survey lines and cultural features that may affect the results (e.g. power lines); and
- copies of any contractor operations and processing reports.

Basic data must be located, corrected and levelled, if appropriate, together with processed images. All geophysical observations and images must be georeferenced to the GDA2020 datum with MGA coordinates or latitude/longitude.

Raw and processed located data must be provided in ASEG GDF2 (preferred) format (or ASEG-ESF format for electrical survey data). However, fixed column ASCII with descriptions of format is also acceptable, as is Electrical Data Interchange (EDI) format for electrical surveys.

Gridded data should be submitted preferably in ER Mapper format. If the original data are in a different format contact the geophysicist on (08) 9222 3154.

For images of electromagnetic data, state which channels were used or include channel number as part of the file name.

Gravity survey data files must include observed corrected and levelled gravity and associated data for each gravity station. Reports on these surveys must specify the field and processing procedures as well as the methods and parameters used to calculate the Bouguer anomalies.

Active source seismic

For an active source seismic survey, the following data should be supplied:

- raw shot data – correlated and uncorrelated (in **SEG-D** or **SEG-Y** format);
- processed data (in **SEG-Y** format);
- observation logs;
- navigation files; and
- acquisition and processing reports.

Where seismic data that has previously been acquired is reprocessed, the following data should be supplied:

- reprocessed data (in **SEG-Y** format);
- navigation files; and
- reprocessing report.

It is not sufficient to only submit images generated from the seismic survey.

Passive-source seismic

For passive seismic surveys, continuous time-series data should be provided in miniSEED format. The header of miniSEED should contain the following information (minimum):

- component name;
- station name;
- sampling rate; and
- start time (in UTC).

The time correction (GPS-based) should be either applied to the miniSEED or preserved in the relevant header.

The instrument response, including gain, for each sensor and digitiser should be provided in StationXML format unique to each station (sampling point). Unique station names should be used for each sampling point (not repeated for multiple points, even if the same instrument was used).

A text-based CSV file showing the geographical coordinates (latitude, longitude, altitude) as a function of time should be provided along with any acquisition and processing reports.

If three-component sensor is used, the horizontal components azimuth should be recorded.

Magneto-telluric

For Magnetotelluric (MT) data, the raw time series data file should be provided where this is available. The preferred format for raw time series data is a readable text file format.

Critical submission requirements for MT data are processed “.edi” data files. An .edi file per site is to be submitted and needs to contain the correct coordinates for that individual site, the correct site ID, all necessary processing information and the output processed data.

Any models completed on the acquired MT data should be supplied as data files in addition to any reports on figures that may be completed. The model files can be supplied as a text file X-Y-Z format or similar, for example, the model files need to be readable by software's such as Leapfrog, Geoscience Analyst, GOCAD.

Airborne geophysical or other remote surveys

It is the preferred option of the department that the data from any airborne or remotely sensed survey be submitted in their entirety.

Aerial photography and LIDAR surveys must be submitted with annual mineral exploration reports and held under Mining Act conditions. The department does not register these surveys under 'Reporting policy' in MAGIX.

Companies or persons who are obliged under the Mining Act to submit airborne survey data as part of a mineral exploration report have the option to register the survey/s under **'Airborne reporting policy'** conditions rather than including the data in the report under strict **Mining Act** conditions.

To register a survey under airborne reporting policy conditions, use the MAGIX online platform at: <https://magix.dmpe.wa.gov.au>

For full details of the airborne survey reporting options see the ['Airborne geophysical survey reporting policy'](#) on the department's website.

1. Reporting policy

The main features of registration under 'Reporting policy' conditions are:

- submission of the survey in its entirety;
- once-only survey reporting regardless of tenements covered;
- transferable registration number;
- fixed total confidentiality period regardless of tenement situation; and
- multi-client conversion option.

No further data submission will be required to comply with Mining Act reporting requirements in respect of an airborne survey registered under reporting policy conditions. A reference to the registration number in each statutory report will suffice.

2. Mining Act conditions

Under strict Mining Act conditions, the data from any airborne or remotely sensed survey must be submitted with the mineral exploration report for each tenement. Such data will be released to open file when the report is released and it will be necessary to re-submit a subset of the data for each partial surrender or surrender report.

Downhole geophysical logging

Details of downhole geophysical logging must be included in the section of the report which deals with drilling. The raw and processed wireline logs (gamma, resistivity, etc.) and MWD data must be provided in DLIS, LIS, LAS, tab-delimited ASCII or WELLOGML (POSC standard) formats. Where possible the downhole lithology/geological event template (DL4) should be used.

Log plots must be submitted in one of PDF, TIFF, JPEG, GIF, PDS, or MTA formats.

Computer modelling

For all 3D modelling carried out, all modelling files must be provided. These may include, but are not limited to, geological, geophysical and resource/reserve models. Mine planning and financial modelling (including financial assumptions) are not required. Visual PDF models alone are not acceptable.

Vector-based models should be exported in 3D DXF format. Continuous models, such as implicit models, should be reported as 3D DXF exports of isoshells or surfaces as appropriate to the parameters that were modelled. Cell-based models, such as 3D block models, should be exported in .csv format. The intent is to allow the 3D models to be viewed and/or imported into any 3D modelling package.

The following information is required:

- sufficient files and associated files to redraw the models (that is, the ability to redraw the final resultant model, rather than regenerating the model);
- details of software and version used;
- observations and images must be geo-referenced to the GDA2020 datum with MGA coordinates or latitude/longitude: and
- local grid transformation data and/or rotation data, if required.

For cell-based models, such as block models, the following information should also be provided:

- block model origin in X, Y and Z;
- block model dimensions in X, Y and Z;
- block model parent-cell size in X, Y and Z;
- minimum sub-cell sizes in X, Y and Z;
- number of cells in X, Y and Z; and
- description of the fields in the file and any coding used.

Consultants' reports must be supplied with the data.

For **estimates of mineral resources and reserves** all mineralisation and/or geological Digital Terrain Models (DTMs) that were used to control or constrain the 3D model must be submitted. These surfaces and/or solids must be in 3D DXF format. The topographic surface must be submitted in 3D DXF format.

Mineral resources and reserves

Mineral resource estimates – estimates of mineral resources or ore reserves are to be provided deposit by deposit, including a total estimate for the project. Estimates should clearly state whether they are inclusive or exclusive of ore reserves. When estimates of mineral resources or ore reserves are first estimated, the following details must be included as a separate appendix:

- plans and sections showing significant results and ore blocks and ore outlines;
- 3D models as described above; and
- description of the method(s) used for estimating mineral resources and ore reserves including:
 - the software used;
 - geostatistical techniques used for the grade interpolation;
 - cut-off grades and other physical/chemical properties used and how they were derived; details of, and quantification of, the type of drillhole intercepts or pits or bulk sampling used; and
 - any other determining factors used in the estimation (e.g. specific gravity, etc).

Resource estimates must be submitted regardless of whether they are Joint Ore Reserves Committee (JORC) compliant or not – providing there is a statement to that effect.

Updates and revisions of mineral resource or ore reserve estimates should be provided only in a summary table in the report. However, when extensions of the mineralisation have been identified and the updated mineral resources and ore reserves have been estimated, the additional data used for the updated estimations and an updated 3D model must be provided.

Reference should be made to the most recent version of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves', as issued by the JORC of The Australian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and the Minerals Council of Australia.

Mining operations

Where a mine is located in the midst of exploration tenements then statements of the annual production figures and current mineral resources and ore reserves should be reported according to the 'Guidelines for mineral resources and ore reserves'.

If a mining operation is proposed, the geological components of the completed feasibility study (e.g. geological, geophysical, hydrogeological, geotechnical) should be attached to the annual mineral exploration report as an appendix. All other studies must be listed in the reference section of the report.

Appendices

Appendix 1

GSWA bibliographic data sheet

Project name	Kryptonite
Combined Reporting Number	C123/2013
Tenement numbers	E77/1234-E77/1256; M77/123; P77/1234
Tenement holder	Big Time Mining Ltd
Tenement operator	Small Time Mining NL
Report type	Annual
Report title (as on cover)	Annual Report on the Kryptonite Project, C123/2010 for the period 1 January to 31 December 2024
Report period	1 January to 31 December 2024
Date of report	1 February 2024
Author/position (writer's name, not company name)	Jones, C. H., Senior Geologist
Operator contact details	Telephone: 08 9123 4567
Address:	21 Main Street, Suburbia, Majorton, WA 6012
Email:	chjones@smalltime.com.au
1:250 000 Map Sheet	Cue (SG50-15)
1:100 000 Map Sheet	Cue 2443
Geodetic datum	GDA2020
Project zone	50 (same as in 1:250 000 Map Sheet code)
Target commodity/s	Gold, Nickel
Prospects drilled	Finch, Swallow
PoW Number	12345
Geophysical Survey Registration Number	R70548
List of assays	Ag, As, Au, Fe, Ni, Pb, Zn (alphabetical)

Abstract

Location:	The Kryptonite project is 100 km south of Cue, Western Australia on the Cue (SG50-15) 1:250 000 map sheet.
Geology:	The project area covers part of the Meekatharra–Mt Magnet greenstone belt. The main rock types are banded iron-formation, basalt, komatiite, dolerite and andesite.
Work done:	Exploration in 2014 comprised geological mapping, an airborne magnetic survey, and aeromagnetic interpretation, the collection of soil and rock chip samples and RAB drilling.
Results:	The RAB drilling tested 2 anomalous areas, the Finch and Swallow prospects, where the best intersections were 2 m @ 1.4 g/t Au from 18 m in drillhole number F018, and 3 m @ 1.2 g/t Au from 25 m in drillhole number F032. Surface sampling produced few anomalous results. The geophysical interpretation has not yet been completed.
Conclusions:	The results were encouraging and further drilling was planned.

Drilling summary:

Hole type	Number of holes	Total drilled (m)
RAB	35	650

Surface geochemistry summary:

Sample type	Number of samples
Soil	96
Rock chip	18

Surveys completed:

Survey type
Heritage survey
Flora survey
Fauna survey
Ground geophysical survey
Airborne geophysical survey
Other (specify)

Appendix 2

Examples of the mineral reporting templates

Pink text is there for instruction only. Do not include it in your data files.

To ensure that column headings line up correctly, view the data files using a spreadsheet such as Microsoft Excel, then save the files as Text (Tab delimited) (*.txt). The column headings for the location coordinates must match the geodetic datum used; e.g. GDA2020 uses MGA_N, whereas AGD84 used AMG_N.

Example 1: Surface Geochemistry Template – SG4

H0002	Version	4*	*This refers to the Template version							
H0003	Date_generated	12-Nov-24								
H0004	Reporting_period_end_date	28-Sep-24								
H0005	State	WA								
H0100	Tenement_no/Combined_report_no		E70/314							
H0101	Tenement_holder	Big Time Mining Ltd								
H0102	Project_name	Kryptonite*	*Critical – must have project name							
H0106	Tenement_operator	Small Time Mining NL								
H0150	250K_map_sheet_number	SH 51-10								
H0151	100K_map_sheet_number	3236	3336	Tab across, do not repeat headers						
H0152	50K_map_sheet_number									
H0153	25K_map_sheet_number									
H0200	Start_date_of_data_acquisition	29-Sep-23								
H0201	End_date_of_data_acquisition	28-Sep-24								
H0202	Data_format	SG4*	*Critical, e.g. SG4 – Surface Geochemistry							
H0203	Number_of_data_records	6*	*Must match number of Data rows (D) below							
H0204	Date_of_metadata_update	12-Nov-24								
H0305	SurfGeochem_Data_File	KP_WASG4_SURF2024A.txt								
H0308	File Verification List	KP_Verification_List_2024.txt								
H0319	SURFQAQC_data_file									
H0500	Feature_located	Surface Sample								
H0501	Geodetic_datum	GDA2020								
H0502	Vertical_datum	AHD								
H0503	Projection	UTM								
H0508	Local Grid Name									
H0530	Coordinate_system	Projected								
H0531	Projection_zone	51*	*Zone is critical with projected coordinates							
H0532	Surface_location_Survey_Instrument		GPS							
H0533	Surface_Location_Survey_Company		Small Time Mining NL							
H0538	Surface_Geophysical_Survey_Instrument									
H0539	Surface_Geophysical_Survey_Company									
H0600	Sample_Code	SOI	RKC							
H0601	Sample_Type	Soil	Rock Chip							
H0602	Sample_description	Soil Sample	Rock chip sample							
H0700	Sample_Prep_Code	SO31								
H0701	Sample_Prep_Desc	SO31:Fine pulverise to 75um								
H0702	Job_no	B40985								
H0800	Assay_code	AR	ICP-OES							
H0801	Assay_company	PH:Phlogiston Laboratories	BR:Brimstone Laboratories							
H0802	Assay_description	Aqua regia digest	Inductively coupled plasma - optical emission spectrometry							
H0900	Remarks	Below: Headings – Sample ID, MGA_E, MGA_N and Sample_type are critical. Others optional								
H1000	Sample ID	MGA_E*	MGA_N*	Sample Type	Au	Ag	As	Cu	Pb	Zn
H1001	units of measure	metres	metres	NA	ppm	ppm	ppm	ppm	ppm	ppm
H1002	assay code from H0800				AR	ICP-OES	ICP-OES	ICP-OES	ICP-OES	ICP-OES
H1003	lower detection limit				0.01	0.01	5	0.1	0.1	0.1
H1004	accuracy	1	1	0	0.01	0.01	5	0.1	0.1	0.1
H1005	upper detection limit									
H1006	preferred laboratory result									
H1007	assay company id – when more than one lab is used				PH	BR	BR	BR	BR	BR
D	KPS001	392200	6589600	SOI	0.01	0.04	13	0.27	0.18	0.4
D	KPS002	392843	6581542	SOI	0.02	0.06	5	0.16	0.12	0.5
D	KPS003	392280	6584510	SOI	0.03	0.04	13	0.24	0.14	0.4
D	KPRK001	391954	6588800	RKC	0.01	0.03	12	0.24	0.17	0.4
D	KPRK002	391790	6588791	RKC	0.02	0.03	11	0.3	0.13	0.3
D	KPRK003	392306	6589861	RKC	0.01	0.03	36	0.19	0.17	0.3
EOF *	*EOF=End of File. Add extra rows for data before EOF as needed.									

EOF * *EOF=End of File. Add extra rows for data before EOF as needed.

View the file in Microsoft Excel to check the alignment of the columns, then "Save As" – "Text (Tab delimited) (*.txt)" from the pull down menu.

* Ensure location column headings match the Geodetic datum, e.g. GDA2020 and GDA94 use MGA_N, whereas AGD84 uses AMG_N

The pink text is for instruction only. Do not include in your data file.

Example 2: Surface Location Template – SL4 (Collar)

H0002	Version	4*	<i>*This refers to the Template version – currently 4</i>							
H0003	Date_generated	12-Nov-24								
H0004	Reporting_period_end_date	28-Sep-24								
H0005	State	WA								
H0100	Tenement_no/Combined_report_no	E70/314								
H0101	Tenement_holder	Big Time Mining Ltd								
H0102	Project_name	Kryptonite*	<i>*Critical – must have project name</i>							
H0106	Tenement_operator	Small Time Mining NL								
H0150	250K_map_sheet_number	SH 51-10								
H0151	100K_map_sheet_number	3236	3336	<i>Tab across, do not repeat headers</i>						
H0152	50K_map_sheet_number									
H0153	25K_map_sheet_number									
H0200	Start_date_of_data_acquisition	29-Sep-23								
H0201	End_date_of_data_acquisition	28-Sep-24								
H0202	Data_format	SL4*								
H0203	Number_of_data_records	3*								
H0204	Date_of_metadata_update	12-Nov-24								
H0300	Related_data_file									
H0301	Location_data_file	KP_WASL4_COLL2024A.txt								
H0302	Lithology_data_file	KP_WADL4_GEO2024A.txt								
H0303	Assay_data_file	KP_WADG4_ASS2024A.txt								
H0304	Survey_data_file	KP_WADS4_SURV2024A.txt								
H0305	SurfGeochem_Data_File	KP_WASG4_SURF2024A.txt								
H0307	Lithology_code_file	SmallTime_data_dictionary								
H0308	FileVerificationList	KP_Verification_List_2024.txt								
H0310	Water_data_file									
H0311	Water_data_included_in_lithology_file	No								
H0313	Alteration_data_file									
H0314	Magsusc_data_file									
H0315	Vein_data_file									
H0316	Recovery_data_file									
H0317	Weathering_data_file									
H0318	DHQAQC_data_file	KP_WAQG4_DQAQC2012A.txt								
H0319	SURFQAQC_data_file									
H0320	Otherevent_data_file	<i>If more files are to be included, add extra rows as needed numbering from H0321</i>								
H0400	Drill_code	DD	RC							
H0401	Drill_contractor	Drill Faster Pty Ltd	Drill Well Pty Ltd							
H0402	Description	Diamond drilling	Reverse Circulation Drilling							
H0500	Feature_located	Drillhole_collar								
H0501	Geodetic_datum	GDA2020								
H0502	Vertical_datum	AHD								
H0503	Projection	UTM								
H0508	LocalGridName									
H0530	Coordinate_system	Projected								
H0531	Projection_zone	51	<i>Zone is critical with projected coordinates</i>							
H0532	Surface_Location_Survey_Instrument	GPS								
H0533	Surface_Location_Survey_Company	Small Time Mining								
H0900	Remarks	<i>Column headers from Hole_id to Rehabilitated listed below are critical. Others may be added.</i>								
H1000	Hole_id	MGA_E	MGA_N*	Elevation	Total_Depth	Drill_Code	Dip	Azimuth_true	Approval_id	Rehabilitated
H1001		metres	metres	metres	metres	NA	degrees	degrees	NA	NA
H1004		1	1	1	1	0	1	1		
D	KPDD001	392200	6589600	320	210	DD	-90	0	56502	Yes
D	KPDD002	391900	6588800	320	129	DD	-90	0	56502	No
D	KPRC001	392300	6589600	320	24	RC	-60	270	56502	Yes

EOF * **EOF=EndOfFile. Add extra rows for data before EOF as needed.*

View the file in Microsoft Excel to check the alignment of the columns, then "Save As" – "Text (Tab delimited) (.txt)" from the pull down menu.*

Check column headings match Geodetic datum (H0501), e.g. GDA2020 and GDA94 use MGA_N; whereas. AGD84 uses AMG_N

Approval_id is department's environmental approval given for this drilling and includes PoW, Mining Proposal or other approval id.

Rehabilitated indicates whether the hole has been rehabilitated to the conditions of approval.

The pink text is for instruction only. Do not include in your data file.

Example 3: Downhole Geochemistry Template – DG4

H0002	Version	4*	<i>*This refers to the Template version – currently 4</i>								
H0003	Date_generated	12-Nov-24									
H0004	Reporting_period_end_date	28-Sep-24									
H0005	State	WA									
H0100	Tenement_no/Combined_report_no	E70/314									
H0101	Tenement_holder	Big Time Mining Ltd									
H0102	Project_name	Kryptonite									
H0106	Tenement_operator	Small Time Mining NL									
H0150	250K_map_sheet_number	SH 51-10									
H0151	100K_map_sheet_number	3236	3336	<i>Tab across, do not repeat headers</i>							
H0152	50K_map_sheet_number										
H0153	25K_map_sheet_number										
H0200	Start_date_of_data_acquisition	29-Sep-23									
H0201	End_date_of_data_acquisition	28-Sep-24									
H0202	Data_format	DG4*	<i>*Critical, e.g. DG4 – Downhole Geochemistry</i>								
H0203	Number_of_data_records	3*	<i>*Must match number of Data rows (D) below</i>								
H0204	Date_of_metadata_update	12-Nov-24									
H0300	Related_data_file										
H0301	Location_data_file	KP_WASL4_COLL2024A.txt									
H0302	Lithology_data_file	KP_WADL4_GEO2024A.txt									
H0303	Assay_data_file	KP_WADG4_ASS2024A.txt									
H0304	Survey_data_file	KP_WADS4_SURV2024A.txt									
H0305	SurfGeochem_Data_File	KP_WASG4_SURF2024A.txt									
H0307	Lithology_code_file	SmallTime_data_dictionary									
H0308	File Verification List	KP_Verification_List_2024.txt									
H0318	DHQAQC_data_file	KP_WAQG4_DQAQC2024A.txt									
H0319	SURFQAQC_data_file										
H0320	Other event_data_file										
H0400	Drill_code	DD	RC								
H0401	Drill_contractor	Drill Faster Pty Ltd									
H0402	Description	Diamond	Reverse circulation								
H0500	Feature_located	Drillhole_collar									
H0501	Geodetic_datum	GDA2020									
H0502	Vertical_datum	AHD									
H0503	Projection	Map Grid of Australia (MGA)									
H0508	Local Grid Name										
H0530	Coordinate_system	Projected									
H0531	Projection_zone	51									
H0532	Surface_Location_Survey_Instrument	GPS									
H0533	Surface_Location_Survey_Company	Small Time Mining									
H0600	Sample_Code	DDC	RCC								
H0601	Sample_Type	Diamond core	RC Chips								
H0602	Sample_description	¼ core	Reverse Circulation chips								
H0700	Sample_Prep_Code	SO31									
H0701	Sample_Prep_Desc	SO31:Fine pulverise to 75um									
H0702	Job_no	G37215 *	<i>*Include Job_no/Batch number here</i>								
H0800	Assay_code*	AR	BLEG	I	CP-OES						
H0801	Assay_company	PH: Phlogiston	BR: Brimstone Labs	BR: Brimstone Laboratories							
H0802	Assay_description	Aqua regia digest	Bulk leach extractable gold	Inductively coupled plasma - optical emission spectroscopy							
H0900	Remarks	<i>The column headers from Hole_id, to Sample_type, are critical. Others optional</i>									
H1000	Hole_id	Sample_id	From	To	Sample_type	Au	Au	As	Cu	Pb	Zn
H1001	units of measure			m	m NA	ppb	ppm	ppm	ppm	ppm	ppm
H1002	assay code from H0800					BLEG	AR	ICP-OES	ICP-OES	ICP-OES	ICP-OES
H1003	lower detection limit					1	0.01	5	0.1	0.1	0.1
H1004	accuracy					1	0.01	5	0.1	0.1	0.1
H1005	Upper detection limit										
H1006	Preferred laboratory result							P			
H1007	assay company id – where more than one laboratory					BR	PH	BR	BR	BR	BR
D	KPDD001	KP32001	0	1	Diamond core	1	0.01	13	0.27	0.18	0.4
D	KPDD001	KP32002	1	2	Diamond core	2	0.02	5	0.16	0.12	0.5
D	KPDD002	KP32003	0	1	Diamond core	1	0.01	12	0.24	0.17	0.4
D	KPRC002	KP32004	0	4	4 metre comp.	3	0.03	5	0.01	0.13	0.2
EOF *	<i>*Add extra rows for data before EOF as needed.</i>										

View file in Microsoft Excel to check column alignment, then use 'Save As' and choose 'Text (Tab delimited) (*.txt)' in the pull down menu.

Ensure that all data starts in the second column next to the D.

The pink text is for instruction only. Do not include in your data file.

Example 4: Downhole Logging Template – DL4

This template is also used for other downhole events such as geophysics, alteration, water, etc.

H0002	Version	4*	*This refers to the Template version – currently 4				
H0003	Date_generated	12-Nov-24					
H0004	Reporting_period_end_date	28-Sep-24					
H0005	State	WA					
H0100	Tenement_no/Combined_report_no	E70/314					
H0101	Tenement_holder	Big Time Mining Ltd					
H0102	Project_name	Kryptonite					
H0106	Tenement_operator	Small Time Mining NL					
H0150	250K_map_sheet_number	SH 51-10					
H0151	100K_map_sheet_number	3236	3336	Tab across, do not repeat headers			
H0152	50K_map_sheet_number						
H0153	25K_map_sheet_number						
H0200	Start_date_of_data_acquisition	29-Sep-23					
H0201	End_date_of_data_acquisition	28-Sep-24					
H0202	Data_format	DL4*	*Critical, e.g. DL4 – Downhole Logging Logging				
H0203	Number_of_data_records	6*	*Must match number of Data rows (D) below				
H0204	Date_of_metadata_update	12-Nov-24					
H0300	Related_data_file						
H0301	Location_data_file	KP_WASL4_COLL2024A.txt					
H0302	Lithology_data_file	KP_WADL4_GEO2024A.txt					
H0303	Assay_data_file	KP_WADG4_ASS2024A.txt					
H0304	Survey_data_file	KP_WADS4_SURV2024A.txt					
H0305	SurfGeochem_Data_File	KP_WASG4_SURF2024A.txt					
H0307	Lithology_code_file	SmallTime_data_dictionary					
H0308	File Verification List	KP_Verification_List_2024.txt					
H0310	Water_data_file						
H0311	Water_data_included_in_lithology_file	No					
H0313	Alteration_data_file						
H0314	Magsusc_data_file						
H0315	Vein_data_file						
H0316	Recovery_data_file						
H0317	Weathering_data_file						
H0318	DHQAQC_data_file	KP_WAQG4_DQAQC2014A.txt					
H0319	SURFQAQC_data_file						
H0320	Other event_data_file						
H0400	Drill_code	AC	RC				
H0401	Drill_contractor	Drill Faster Pty Ltd			Drill Well Pty Ltd		
H0402	Description	Aircore Drilling			Reverse Circulation Drilling		
H0500	Feature_located	Drillhole_collar					
H0501	Geodetic_datum	GDA2020					
H0502	Vertical_datum	AHD					
H0503	Projection	Map Grid of Australia (MGA)					
H0508	Local Grid Name						
H0530	Coordinate_system	Projected					
H0531	Projection_zone	51					
H0532	Surface_Location_Survey_Instrument	GPS					
H0533	Surface_Location_Survey_Company						
H0536	Downhole_Geophysical_Survey_Instrument						
H0537	Downhole_Geophysical_Survey_Company						
H0900	Remarks	Below: column headers Hole_id, Depth_from & Depth_to, are critical. Others may be added.					
H1000	Hole_id	Depth_from	Depth_to	Rock1	Rock2	Rock3	Veins
H1001	units of measure	metres	metres	NA	NA	NA	NA
H1004	accuracy	1	1	0	0	0	0
D	KPDD001	0	4	Gbr	gns		
D	KPDD001	4	8	gn	sed		
D	KPDD002	0	4	ba	sst	vc	
D	KPDD002	4	8	tl			
D	KPRC001	0	4	rc	v		
D	KPRC001	4	8	sch	t		
EOF *	*Add extra rows for data before EOF as needed.						

The pink text is for instruction only. Do not include in your data file.

Example 5: Downhole Survey Template— DS4

H0002	Version	4*	<i>*This refers to the Template version – currently 4</i>			
H0003	Date_generated	12-Nov-24				
H0004	Reporting_period_end_date	28-Sep-24				
H0005	State	WA				
H0100	Tenement_no/Combined_report_no	E70/314				
H0101	Tenement_holder	Big Time Mining Ltd				
H0102	Project_name	Kryptonite				
H0106	Tenement_operator	Small Time Mining NL				
H0150	250K_map_sheet_number	SH 51-10				
H0151	100K_map_sheet_number	3236	3336	<i>Tab across, do not repeat headers</i>		
H0152	50K_map_sheet_number					
H0153	25K_map_sheet_number					
H0200	Start_date_of_data_acquisition	29-Sep-23				
H0201	End_date_of_data_acquisition	28-Sep-24				
H0202	Data_format	DS4*	<i>*Critical, e.g. DS4 – Downhole Survey</i>			
H0203	Number_of_data_records	6*	<i>*Must match number of Data rows (D) below</i>			
H0204	Date_of_metadata_update	12-Nov-24				
H0300	Related_data_file					
H0301	Location_data_file	KP_WASL4_COLL2024A.txt				
H0302	Lithology_data_file	KP_WADL4_GEO2024A.txt				
H0303	Assay_data_file	KP_WADG4_ASS2024A.txt				
H0304	Survey_data_file	KP_WADS4_SURV2024A.txt				
H0305	SurfGeochem_Data_File	KP_WASG4_SURF2244A.txt				
H0307	Lithology_code_file	SmallTime_data_dictionary				
H0308	File Verification List	KP_Verification_List_2024.txt				
H0310	Water_data_file					
H0311	Water_data_included_in_lithology_file	No				
H0313	Alteration_data_file					
H0314	Magsusc_data_file					
H0315	Vein_data_file					
H0316	Recovery_data_file					
H0317	Weathering_data_file					
H0318	DHQAQC_data_file	KP_WAQC4_DQAQC2014A.txt				
H0319	SURFQAQC_data_file					
H0320	Other event_data_file					
H0400	Drill_code	DD	RC			
H0401	Drill_contractor	Drill Faster Pty Ltd	Drill Well			
H0402	Description	Diamond Drilling	Reverse			
H0500	Feature_located	Drillhole_collar				
H0501	Geodetic_datum	GDA2020				
H0502	Vertical_datum	AHD				
H0503	Projection	Map Grid of Australia (MGA)				
H0508	Local Grid Name					
H0530	Coordinate_system	Projected				
H0531	Projection_zone	51				
H0532	Surface_Location_Survey_Instrument	GPS				
H0533	Surface_Location_Survey_Company					
H0534	Downhole_Direction_Survey_Instrument	Single shot camera – SS				
H0535	Downhole_Direction_Survey_Company	Small Time Mining NL				
H0900	Remarks	<i>Below: the column headers from Hole_id, to Dip are critical.</i>				
H1000	Hole_id	Surveyed_Depth	Azimuth_True#	Dip	Survey_instrument	Drill_code
H1001	units of measure	metres	degrees	degrees	NA	NA
H1004	accuracy	1	0	0		
D	KPDD001	0	272	-60.3	SS	DD
D	KPDD001	4	263	-61	SS	DD
D	KPDD002	0	180	-60	SS	DD
D	KPDD002	4	180	-62	SS	DD
D	KPRC001	0	175	-61.4	SS	RC
D	KPRC001	4	0	-90	ns	RC

EOF * **Add extra rows for data before EOF as needed.*

Whereas Azimuth_true is preferred, Azimuth_mag will be accepted; but Azimuth_grid will not be accepted.

View file in Microsoft Excel to check alignment, then use 'Save As' and choose 'Text (Tab delimited) (*.txt)' in the pull down menu.

The pink text is for instruction only. Do not include in your data file.

Example 6: Quality Control Template – QG4

H0002	Version	4*	*This refers to the Template version – currently 4							
H0003	Date_generated	12-Apr-24								
H0004	Reporting_period_end_date	28-Feb-24								
H0005	State	WA								
H0100	Tenement_no/Combined_report_no	E70/314								
H0101	Tenement_holder	Big Time Mining Ltd								
H0102	Project_name	Kryptonite	Critical							
H0106	Tenement_operator	Small Time Mining NL								
H0150	250K_map_sheet_number	SH 51-10								
H0151	100K_map_sheet_number	3236	3336	Tab across, do not repeat headers						
H0152	50K_map_sheet_number									
H0153	25K_map_sheet_number									
H0200	Start_date_of_data_acquisition	01-Mar-23								
H0201	End_date_of_data_acquisition	28-Feb-24								
H0202	Data_format	DG4 *	*Critical, e.g. DG4 – Downhole Geochemistry							
H0203	Number_of_data_records	4*	*Must match number of Data rows (D) below							
H0204	Date_of_metadata_update	12-Apr-24								
H0300	Related_data_file									
H0301	Location_data_file	KP_WASL4_COLL2024A.txt								
H0302	Lithology_data_file	KP_WADL4_GEO2024A.txt								
H0303	Assay_data_file	KP_WADG4_ASS2024A.txt								
H0304	Survey_data_file	KP_WADS4_SURV2024A.txt								
H0305	SurfGeochem_Data_File	KP_WASG4_SURF2024A.txt								
H0307	Lithology_code_file	SmallTime_data_dictionary								
H0308	File Verification List	KP_Verification_List_2024.txt								
H0318	DHQAQC_data_file	KP_WAQG4_DQAQC2024A.txt								
H0319	SURFQAQC_data_file									
H0320	Other event_data_file									
H0400	Drill_code	DD	RC							
H0401	Drill_contractor	Drill Faster Pty Ltd								
H0402	Description	Diamond	Reverse circulation							
H0500	Feature_located	Drillhole_collar								
H0501	Geodetic_datum	GDA2020								
H0502	Vertical_datum	AHD								
H0503	Projection	UTM								
H0508	Local Grid Name									
H0530	Coordinate_system	Projected								
H0531	Projection_zone	51								
H0532	Surface_Location_Survey_Instrument	GPS								
H0533	Surface_Location_Survey_Company									
H0600	Sample_Code	DDC	RCC							
H0601	Sample_Type	Diamond core	RC Chips							
H0602	Sample_description	¼ core	Reverse Circulation chips							
H0700	Sample_Prep_Code	SO31								
H0701	Sample_Prep_Desc	SO31:Fine pulverise to 75um								
H0702	Job_no	G37215 *	*Include laboratory/Job/Batch No.							
H0800	Assay_code* record also at H1002	AR	BLEG	ICP-OES						
H0801	Assay_company	PH: Phlogiston	BR: Brimstone Labs	BR: Brimstone Laboratories						
H0802	Assay_description	Aqua regia digest	Bulk leach extractable gold	Inductively coupled plasma - optical emission spectroscopy						
H0900	Remarks The H1000 column headers Hole_id, Sample_id, are critical									
H1000	Hole_id	Sample_id	QAQC_type	QAQC_desc	Original_id	Au	As	Cu	Pb	Zn
H1001	units of measure	m		m	NA	ppb	ppm	ppm	ppm	ppm
H1002	assay code from H0800					BLEG	ICP-OES	ICP-OES	ICP-OES	ICP-OES
H1003	lower detection limit					1	5	0.1	0.1	0.1
H1004	accuracy					1	5	0.1	0.1	0.1
H1005	upper detection limit									
H1006	upper detection limit preferred laboratory result									
H1007	assay company id – where more than one laboratory used					BR	BR	BR	BR	D
KPDD001	KP32001	Ldup				1	13	0.27	0.18	0.3
D	KPDD001	KP32002	ST	KG1 standard		2	5	0.16	0.12	0.5
D	KPDD002	KP32016	Fdup		KP32003	1	12	0.24	0.17	0.4
D	KPRC002	KP32004	Blank			0	0	0	0	0
EOF *	*Add extra rows for data before EOF as needed.									

NB – Do not include QAQC data in DG (downhole geochemistry) or SG (surface geochemistry) files.
The pink text is for instruction only. Do not include in your data file.

Example 7: Portable XRF Surface Geochemistry – SG4_PXRF

H0002	Version	4*	<i>*This refers to the Template version – currently 4</i>										
H0003	Date_generated	12-Nov-24											
H0004	Reporting_Period_end_date	28-Sep-24											
H0005	State	WA											
H0100	Tenement_no/Combined_rept_no.	E77/1374/C20_2005											
H0101	Tenement_holder	Big Time Mining Ltd											
H0102	Project_name	Kryptonite*	<i>*Critical – must have project name</i>										
H0106	Tenement_operator	Small Time Mining NL											
H0150	250K_map_sheet_number	SH 50-12 Jackson											
H0151	100K_map_sheet_number	2736 Bullfinch											
H0200	Start_date_of_data_acquisition	29-Sep-23											
H0201	End_date_of_data_acquisition	28-Sep-24											
H0202	Data_format	SG4											
H0203	Number_of_data_records	7263											
H0204	Date_of_metadata_update	12-Nov-24											
H0301	Location_data_file												
H0302	Lithology_data_file												
H0303	Assay_data_file	KP_WASG4_PXRF_SURF2024A.txt											
H0304	Survey_data_file												
H0305	SurfGeochem_data_file												
H0307	Lithology_code_file												
H0318	pXRF_QAQC_data_file	KP_WASG4_PXRF_QAQC_SURF2024A.txt											
H0500	Feature_located	Surface Sample Point											
H0501	Geodetic_datum	GDA2020											
H0502	Vertical_datum	AHD											
H0503	Projection	UTM											
H0530	Coordinate_system	Projected											
H0531	Projection_zone	50											
H0600	Sample_Code	Rock chip											
H0601	Sample_Type	Rock Chip											
H0602	Sample_Description												
H0700	Sample_Preparation_Code	NA											
H0701	Sample_Preparation_Details	NA											
H0702	Assay_Job_No	NITON_2012_05_22											
H0800	Assay_Code	pXRF											
H0801	Assay_Company	Small Time Mining NL											
H0802	Assay_Description	Test all geo(TAG)mode, 3 filters set to 15 sec each, Light metals 45 sec											
H0803	XRF_time_elapsed	90 seconds total											
H0804	XRF_beam_time	Main 15 sec Low 15 sec High 15 sec Light 45 sec											
H0805	XRF_Errors_Sigma	2											
H0806	XRF_Instrument_Type	NITONXL3t_GOLDD #6											
H0807	XRF_Instrument_Serial_No	1234567											
H0900	Remarks												
H1000	Id_No	Sample_No	MGA_E	MGA_N	N_SAMPLE	Reading_No	Sequence	Mode	Duration	Cu	Cu_error	Pb	Pb-error
H1001	Units of measure per field				N/A	N/A	N/A	N/A	sec	ppm	ppm	ppm	ppm
H1002	Assay code per field									N/Bulk		N/Bulk	
H1008	Calibration m factor									1		1	
H1009	Calibration c factor									0		0	
H1010	Correlation R									1		1	
D	18	SRDD0001	392200	6589600	SRD 001.5	3	Final	TAG	90	68	34	< LOD	12
D	19	SRDD0001	392843	6581542	SRD 001.1	4	Final	TAG	90	250	55	79	18
D	20	SRDD0001	392280	6584510	SRD 001.5	5	Final	TAG	90	54	17	< LOD	8
D	21	SRDD0001	391354	6588800	SRD 001.2	6	Final	TAG	90	77	17	< LOD	9
D	22	SRDD0001	391370	6588791	SRD 002.5	7	Final	TAG	90	47	10	< LOD	8
D	23	SRDD0001	392136	6589861	SRD 001.3	8	Final	TAG	90	27	10	< LOD	8
D	24	SRDD0001	392214	6589911	SRD 003.5	9	Final	TAG	90	35	22	< LOD	8

EOF * ***EOF=EndOfFile.** Add extra rows for data before EOF as needed.

View the file in Microsoft Excel to check the alignment of the columns, then "Save As" – "Text (Tab delimited) (*.txt)" from the pull down menu.

Check column headings match Geodetic datum (H0501), e.g. GDA2020 and GDA94 use MGA_N; whereas. AGD84 uses AMG_N

Approval_id is department's environmental approval given for this drilling and includes PoW, Mining Proposal or other approval id.

Rehabilitated indicates whether the hole has been rehabilitated to the conditions of approval.

The pink text is for instruction only. Do not include in your data file.

Example 8: Portable XRF Downhole Geochemistry – DG4_PXRF

H0002	Version	4*	<i>*This refers to the Template version – currently 4</i>										
H0003	Date_generated	12-Nov-24											
H0004	Reporting_Period_end_date	28-Sep-24											
H0005	State	WA											
H0100	Tenement_no/Combined_rept_no	E77/1374/C20_2005											
H0101	Tenement_holder	Big Time Mining Ltd											
H0102	Project_name	Kryptonite											
H0106	Tenement_operator	Small Time Mining NL											
H0150	250K_map_sheet_number	SH 51-10											
H0151	100K_map_sheet_number	3236	3336	<i>Tab across, do not repeat headers</i>									
H0200	Start_date_of_data_acquisition	29-Sep-23											
H0201	End_date_of_data_acquisition	28-Sep-24											
H0202	Data_format	DG4*	<i>*Critical, e.g. DG4 – Downhole Geochemistry</i>										
H0203	Number_of_data_records	7263*	<i>*Must match number of Data rows (D) below</i>										
H0204	Date_of_metadata_update	12-Nov-24											
H0301	Location_data_file	KP_WASL4_COLL2024A.txt											
H0302	Lithology_data_file	KP_WADL4_GEO2024A.txt											
H0303	Assay_data_file	KP_WADG4_ASS2024A.txt											
H0303	Assay_data_file	KP_WADG4_PXRF_ASS2024A.txt											
H0304	Survey_data_file	KP_WADS4_SUR2024A.txt											
H0307	Lithology_code_file	KP Lithological_Codes											
H0311	Water_data_included_in_lithology_file	YES											
H0314	Magsusceptibility_data_file	KP_WADL4_MAGSUS2024A.txt											
H0316	Geotec_data_file	KP_WADG4_GEOTEC2024A.txt											
H0318	QAQC_data_file	KP_WADG4_QAQC2024A.txt											
H0318	PXRF_QAQC_data_file	KP_WADG4_PXRF_QAQC2024A.txt											
H0400	Drill_code	DDH											
H0401	Drill_contractor	Drill Faster											
H0402	Drill_description	Diamond											
H0500	Feature_located	Portable XRF analysis point											
H0501	Geodetic_datum	GDA2020											
H0502	Vertical_datum	AHD											
H0503	Projection	UTM											
H0530	Coordinate_system	Projected											
H0531	Projection_zone	51											
H0600	Sample_Code	DDH & RC											
H0601	Sample_Type	HQ & NQ core											
H0602	Sample_Description	Spilt quarter NQ core											
H0700	Sample_Preparation_Code	NA											
H0701	Sample_Preparation_Details	NA											
H0702	Assay_Job_No	NITON_2012_05_22*	<i>*Include Job_no/Batch number here</i>										
H0800	Assay_Code	p XRF											
H0801	Assay_Company	Small Time Mining NL											
H0802	Assay_Description	Test all geo(TAG)mode, 3 filters set to 15 sec											
H0803	XRF_elapsed_time	90 seconds total											
H0804	XRF_beam_time	Main 15 sec Low 15 sec High 15 sec Light 45											
H0805	XRF_errors_sigma	2											
H0806	XRF_Instrument_Type	NITONXL3t_GOLDD #6											
H0807	XRF_Instrument_Serial No	1234567											
H0900	Remarks												
H1000	Id_No	Hole_No	From	To	SAMPLE	Reading_No	Sequence	Mode	Duration	Cu	Cu_error	Pb	Pb-error
H1001	Units_		m	m		N/A	N/A	N/A	sec	ppm	ppm	ppm	ppm
H1002	Assay_code_per_field									N/Bulk		N/Bulk	
H1008	Calibration m factor									1		1	
H1009	Calibration c factor									0		0	
H1010	Correlation R									1		1	
D	1	SRDD0000	0.5	0.5	SRD 001.5	3	Final	TAG	90	68	34	< LOD	22
D	1	SRDD0000	1.0	1.0	SRD 001 1	4	Final	TAG	90	250	55	79	10
D	2	SRDD0000	1.5	1.5	SRD 001 1.5	5	Final	TAG	90	54	17	< LOD	15
D	2	SRDD0000	2.0	2.0	SRD 001 2	6	Final	TAG	90	77	17	< LOD	23
D	2	SRDD0000	2.5	2.5	SRD 001 2.5	7	Final	TAG	90	47	10	< LOD	26
D	2	SRDD0000	3.0	3.0	SRD 001 3	8	Final	TAG	90	27	10	< LOD	19
D	2	SRDD0000	3.5	3.5	SRD 001 3.5	9	Final	TAG	90	35	22	< LOD	21

EOF * **Add extra rows for data before EOF as needed.*

View file in Microsoft Excel to check column alignment, then use 'Save As' and choose 'Text (Tab delimited) (.txt)' in the pull down menu.*

Ensure that all data starts in the second column next to the D.

The pink text is for instruction only. Do not include in your data file.

Example 9: Diamond Indicator Mineral Template – SG4

H0002	Version *	4*	<i>*This refers to the Template version – currently 4</i>							
H0003	Date_generated	12-Nov-24								
H0004	Reporting_period_end_date	28-Sep-24								
H0005	State	WA								
H0100	Tenement_no/Combined_report_no	E70/314								
H0101	Tenement_holder	Big Time Mining Ltd								
H0102	Project_name	Kryptonite*	<i>*Critical – must have project name</i>							
H0106	Tenement_operator	Small Time Mining NL								
H0150	250K_map_sheet_number	SH 51-10								
H0151	100K_map_sheet_number	3236 3336								
H0152	50K_map_sheet_number									
H0153	25K_map_sheet_number									
H0200	Start_date_of_data_acquisition	01-Mar-23								
H0201	End_date_of_data_acquisition	28-Feb-24								
H0202	Data_format	SG4*	<i>*Critical, e.g. SG4 – Surface Geochemistry</i>							
H0203	Number_of_data_records	6*	<i>*Must match number of Data rows (D) below</i>							
H0204	Date_of_metadata_update	12-Nov-24								
H0305	SurfGeochem_Data_File	KP_WASG4_SURF2024A.txt								
H0308	File Verification List	KP_Verification_List_2024A.txt								
H0319	SURFQAQC_data_file									
H0500	Feature_located	Surface Sample								
H0501	Geodetic_datum	GDA2020								
H0502	Vertical_datum	AHD								
H0503	Projection	UTM								
H0508	Local Grid Name									
H0530	Coordinate_system	Projected								
H0531	Projection_zone*	51	<i>* Critical with projected coordinates (matches map sheet)</i>							
H0532	Surface_location_Survey_Instrument	GPS								
H0533	Surface_Location_Survey_Company	Small Time Mining NL								
H0538	Surface_Geophysical_Survey_Instrument									
H0539	Surface_Geophysical_Survey_Company									
H0600	Sample_Code	LOA								
H0601	Sample_Type	Loam								
H0602	Sample_description	Loam sample								
H0700	Sample_Prep_Code	HMC								
H0701	Sample_Prep_Desc	Heavy mineral concentration								
H0702	Job_no	B40985								
H0800	Assay_code	HMC								
H0801	Assay_company	In House (IH) – observation					Kitech – processing.			
H0802	Assay_description	Heavy Mineral Concentrate								
H0900	Remarks	<i>The H1000 headings beyond Sample Type are suggestions only.</i>								
H1000	Sample_id	MGA_E	MGA_N	Sample_Type	Diamond	Pyrope	Cr-Diopside	Picro-ilmenite	Cr-Spinel	Final_Wt.
H1001	units	metres	metres	NA	counts	counts	counts	counts	counts	gm
H1002	assay code from H0800				HMC	HMC	HMC	HMC	HMC	HMC
H1003	Lower mesh size observed.				+0.25mm	+0.25mm	+0.25mm	+0.25mm	+0.25mm	+0.25mm
H1005	Upper mesh size observed.				+1.0mm	+0.8mm	+0.8mm	+0.8mm	+0.8mm	+0.8mm
H1007	Processing lab if different to observing laboratory				Kitech	Kitech	Kitech	Kitech	Kitech	Kitech
D	KPL0011	392200	6589600	LOA	0	1	1	0	18	45
D	KPL0012	392843	6581542	LOA	0	0	0	1	12	50
D	KPSS021	391790	6588791	Str	0	1	0	0	13	5
D	KPSS022	392306	6589861	Str	0	2	3	1	117	38
D	KPSS023	392345	6615451	Str	1	1	0	0	0	100
D	KPSS024	392456	6629867	Str	0	0	0	0	10	87
EOF										

EOF

The pink text is for instruction only. Do not include in your data file.

Appendix 3

Verification list

Exploration work type	File name	Format
Office studies		
Literature search		
Database compilation		
Computer modelling		
Reprocessing of data		
General research		
Report preparation	KP_2024A.pdf	.pdf
Other (specify)		
Airborne exploration surveys		
Aeromagnetic	KP_Aeormagnetic_survey_Logistics_Report.pdf	
Radiometrics		
Electromagnetics		
Gravity		
Digital terrain modelling		
Other (specify)		
Remote sensing		
Aerial photography		
LANDSAT		
SPOT		
MSS		
Radar		
Other (specify)		
Ground exploration surveys		
Geological mapping		
Regional	KP_GIS.zip	.map, .tab, .id
Reconnaissance		
Prospect		
Underground		
Costean		
Ground geophysical surveys		
Radiometric		
Magnetic		
Gravity		
Digital terrain modelling		
Electromagnetic		

Exploration work type	File name	Format
SP/AP/EP		
IP	KP_IP_Data_2024A.zip	.gdd, .pdf
AMT		
Resistivity		
Complex resistivity		
Seismic reflection		
Seismic refraction		
Well logging		
Geophysical interpretation		
Other (specify)		
Geochemical surveying		
Drill sample		
Stream sediment		
Soil	KP_WASG4_SURF_SOIL2024A.txt	.txt
Rock chip	KP_WASG4_SURF_ROCK2024A.txt	.txt
Laterite		
Water		
Biogeochemistry		
Isotope		
Whole rock		
Mineral analysis		
Other (specify)		
Drilling		
Diamond		
Reverse circulation		
Rotary air blast		
Aircore		
Auger		
Groundwater drilling		
All drilling	KP_WASL4_COL2024A	.txt
	KP_WADS4_SURV2024A	.txt
	KP_WADL4_GEO2024A	.txt
	KP_WADG4_ASS2024A	.txt

Government of Western Australia

Department of Mines, Petroleum and Exploration

8.30am – 4.30pm

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