

Work program guideline (MRA)

A guide to preparing and lodging a proposed program

To accompany an application for grant or renewal for an exploration permit or mineral development licence made under the *Mineral Resources Act 1989*

Contents

About this guideline.....	4
Purpose of work program	4
Contents of work program for an EP	4
Contents of work program for an MDL	6
Contents of a work program for an EP and an MDL.....	7
Lodgement.....	8
Assessment of a work program for an EP.....	9
Assessment of a work program for an MDL.....	9
Work program (renewal).....	10
Program period	10
EP tender application	10
Other EP applications.....	10
EP renewal application	10
MDL application or renewal	10
Examples of work program summaries	12
General map requirements.....	14
EP tender applications	14
Available data about the proposed area	14
Special criteria.....	14
Maps and plans	15
Appendix 1: Work program requirements - guide to content for proposed work program under the MRA.....	15
Appendix 2: Template information	21
Document information.....	25

This publication has been compiled by Regulatory Support and Performance, Georesources Division, Department of Resources.

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Work Program Guideline (MRA)
Department of Resources
March 2021 Version 2.2

About this guideline

This guideline includes providing guidance and information about preparing and lodging a proposed work program that must accompany an application for the grant and renewal of an exploration permit (EP) or a mineral development licence (MDL) lodged under the *Mineral Resources Act 1989* (MRA).

A program of work is also known as a 'work program'. All references to work program in forms, templates and systems has the same meaning as program of work.

Purpose of work program

A work program provides an understanding of the nature and extent of the proposed activities to be carried out or outcomes to be pursued on an EP by its holders or the activities to be carried out on an MDL.

The provision of a work program allows assessment of:

- the proposed activities or outcomes to be pursued and the appropriateness of these for the geology of the EP or the appropriateness of the proposed activities for an MDL;
- competitive applications made for EP (non-coal) tenders, EP (coal) tenders, or exploration permit for minerals or exploration permit (specific) applications made over all or part of the same area on the same day; and
- whether an EP should be renewed based on proposed exploration activities or outcomes to be pursued in the proposed work program for the term or whether an MDL should be renewed based on the proposed activities in the work program for the renewed term.

Contents of work program for an EP

A work program may either be activities-based or outcomes-based under section 130AA of the MRA. However, a call for tender or a request made by the Minister may state that a particular type of work program is required e.g. for moratorium day EP applications, same day applications and tenders.

Section 130AA(1) of the MRA provides that a work program for a term of an EP is a work program that is either activities-based or outcomes-based.

Under section 130AA(2), an activities-based work program for a term of an EP is a document stating:

- (a) the activities proposed to be carried out during the term; and
- (b) the estimated human, technical and financial resources proposed to be committed to exploration during the term.

An activities-based **work program** which contains sufficient information to be assessed against the requirements set out under section 137(3) should contain:

- a list of the activities proposed to be carried out and the financial resources to be committed to exploration activities for the term;
- a sufficiently detailed rationale document for the work program which includes statements about:
 - how the exploration model will significantly advance the assessment for the work program outlining the basis of prospectivity with consideration of the exploration maturity of the area;
 - details of when and where exploration activities will be carried out (when and where does not need to be evidenced by GPS coordinates or any other exact markers – the department only requires the general locality in relation to geological formations);
 - maps that show target formations and where exploration activities are proposed to be carried out;
 - details about previous exploration undertaken including any identified mineral or resources within the area of the EP;
 - justification for the area of the permit with respect to the proposed exploration program;
 - if the proposed permit supports other permits or forms part of a broader project, the work program must describe how it is to operate in the context of the project and clearly show the relationship of the other permits; and
 - detail on resource or infrastructure studies proposed to be carried out.

For further information on an activities-based work program refer to the [Work Program Guideline \(MRA\)](#).

Under section 130AA(3), an outcomes-based work program for a term of an EP is a document stating:

- (a) the outcomes proposed to be pursued during the term; and
- (b) the strategy for pursuing the outcomes mentioned in paragraph (a); and
- (c) the information and data proposed to be collected as an indication of mineralisation during the term; and
- (d) the estimated human, technical and financial resources proposed to be committed to exploration during the term.

An outcomes-based **work program** which complies with section 137(3) will have a statement on the outcomes to be pursued and a sufficiently detailed rationale document providing information to include:

- a description, location and timing of the activities or exploration techniques proposed to be carried out initially (e.g.) for the first two years) and the likely direction of the work program for the remainder of the term subject to exploration results
- information on the data to be collected, geochemical analysis to be undertaken including outcrop samples, assays of drill hole intersections, geochemical results and geophysical results.

An application for an EP for coal in a coal mining project must be accompanied by a work program and a statement about how the work proposed to be carried out under the EP is necessary for the operation of the coal mining project, pursuant to section 136R(d) of the MRA. The department requires this to include government or privately sourced or developed research analysis (if applicable).

For further information on an outcomes-based work program refer to the [Work Program Guideline \(MRA\)](#).

The decision-maker must not grant an EP unless the work program is approved, therefore if the decision-maker is unable to approve the work program the application **will be refused** under section 136(1)(b).

Contents of work program for an MDL

Section 183(1)(m)(ii) of the MRA requires a proposed work program to accompany an MDL application.

The scope of work programs for an MDL may vary depending on the size and complexity of the proposed operation. If the proposed licence supports other permits or forms part of a broader project, the work program must describe it and clearly show the relationship to the proposed licence.

An application for an MDL must be accompanied by a statement that:

- gives a detailed description and technical particulars of the mineral occurrence for which the MDL is sought together with any supporting documents, including a preliminary resource model and a map showing the outline of the resource to date within the MDL boundary.
- states any activities proposed to be carried out under the MDL including any work programs, amounts to be spent and studies to be performed;
- stating the estimated human, technical and financial resources proposed to be committed to authorised activities for the MDL during each year of the proposed licence.

All applicants are required to include with the resource statement:

- for minerals - a JORC report;
- geological confidence statements for indicated, measured and inferred JORC resources which describes the attributes of the resource status;
- for coal – a statement to an acceptable standard
- the method of proposed mining and critical assumptions (e.g. strip ratios if known);
- potential infrastructure requirements and a map of their location in relation to the area applied for; and
- a statement about environmental constraints and how they impact the size and shape of the application area applied for.

An application for renewal of an MDL made under section 197, must be accompanied by a statement:

- describing the proposed work program to be carried out, if renewed; and

- the estimated human, technical and financial resources for the carrying out of the proposed activities for the renewed term.

Contents of a work program for an EP and an MDL

An EP or MDL applicant or holder may provide the information detailed in Appendix 1 for the proposed work program. In doing so, the application will need to prepare a summary of proposed authorised activities (for an EP or an MDL) or the outcomes to be pursued (for an EP) for the term of the proposed work program.

A Microsoft Excel Spreadsheet template has been developed to provide a summary of proposed activities for a work program. The template will facilitate comparative assessments of competing applications. It is available at the following link:

<https://www.business.qld.gov.au/industries/mining-energy-water/resources/minerals-coal/authorities-permits/applying/development>

Appendix 2 of this guideline details the authorised activities that may be selected in the template. [Examples of work program summaries](#) are in Table 1 and Table 3 of this guideline provide what a completed template may look like for an activities-based work program and an outcomes-based work program for an EP. Table 2 provides an example of what a completed template may look like for a work program for an MDL.

[Appendix 1](#) includes a guide to content for the work program summary, and includes:

For an activities-based work program for an EP -

- a detailed summary of the activities you propose to carry out for an activities-based work program an overview of activities to be carried out on an EP or MDL or the outcomes to be pursued for the term of the EP; and
- a rationale document which includes information relating to the why, when, where and how the applicant proposes to carry out exploration activities in the proposed area of the permit. Where small scale exploration activities are proposed, the lodgement of the completed work program template may be sufficient to meet the requirements for a proposed work program. The completion of the template replaces the need to provide the information detailed in Appendix 1 of this guideline; and
- and a statement providing the estimated financial resources to be committed to exploration activities for the term.

For an outcomes-based work program for an EP -

- a work program – a detailed summary of the outcomes you propose to pursue for an outcomes-based work program; and
- an in-depth rationale document - information detailing the applicants geological and mineralisation reasoning that supports the application for this area and the proposed work. This should be readily related to the why, when, where and how the applicant proposes to pursue the proposed outcomes in the proposed area of the permit; and

- the information (system / deposit models, geochemical vectors, geophysical responses, etc) and data (Alteration / structural mapping, resistivity, relative geochemistry, etc) proposed to be collected as an indication of mineralisation of the permit during the term; and
- a statement providing the estimated financial resources to be committed to pursuing the outcomes for the term.

For a work program for an MDL -

- the extent and nature of activities proposed to be carried out during the term that will lead to the evaluation and economic development of the ore body within the area of the MDL; and
- for the term of the proposed work program:
 - generally where the activities are proposed to be carried out; and
 - maps that show where the activities are proposed to be carried out; and
 - be carried out; and
 - including maps that show where the activities are proposed to be carried out; and
- for each year of an MDL, the estimated cost of the activities; and
- any other information relevant to the matters mentioned in the above dot-points.

See Appendix 1 for specific requirements and explanations.

Lodgement

A proposed work program must accompany the following applications made under the MRA:

- an EP for all minerals, other than coal (EPM);
- an EPM in response to a call for EP (non-coal) tenders;
- an EP for coal (EPC) in response to a call for EP (coal) tenders;
- an EPC related to a project;
- a specific mineral or minerals EP (EPS); and
- an MDL application for coal or minerals.

Reference to an 'EP application' in this guideline means, collectively, an application for an, EPM or EPS or project related EPC¹ unless otherwise noted.

EP and MDL applications are to be lodged online via the [MyMinesOnline](#) electronic lodgement system.

An EP application made in response to an EP (non-coal) tender or EP (coal) tender is collectively referred to as an EP tender application. Sometimes an MDL will be released for tender. These should be lodged electronically by uploading the documents to [QTenders](#) before the tender closing time. Details about where to lodge and the documents to be lodged are contained within the tender document.

¹ An EPC in relation to a coal mining project under Chapter 4, Part 3, Division 5 of the *Mineral Resources Act 1989*.

The work program for competitive assessment and an EP application from land released from a moratorium area must be activities-based, pursuant to section 134A(5) of the MRA.

Assessment of a work program for an EP

In deciding whether to approve a work program for the term of an EP, the Minister must have regard to any special criteria that is stated in the call for tender, and the prescribed criteria for grant of an EP under section 137. Under section 137(3), the Minister must have regard to the following matters:

For a work program (activities-based):

- the extent of the proposed activities in the proposed area of the EP;
- when and where the applicant proposes to carry out exploration activities in the proposed area of the EP; and
- whether the applicant has the financial and technical capability of carrying out the proposed activities.

Compliance with an activities-based work program, is assessed against the activities that were proposed to be carried out during the term.

For work program (outcomes-based):

- whether the applicant has an adequate technical knowledge of the geology of the proposed area of the EP;
- whether the proposed outcomes ensure appropriate exploration of the proposed area of the EP; and
- whether the applicant has the financial and technical capability of pursuing the proposed outcomes.

Greater emphasis is on the collection of new data and proactive on-ground exploration which contributes to the exploration outcomes rather than strict compliance with activities or expenditure.

Compliance with an outcomes-based work program, is assessed against the information and data that is provided to the department for the term and the extent to which these outcomes have been achieved. The activities carried out, information and data proposed to be collected for each type of work program respectively, is an indication of mineralisation during the term.

Assessment of a work program for an MDL

In deciding whether to approve a work program for the term of an MDL, it is the policy of the department that the Minister will have regard to:

- geological, geophysical and geochemical programs and other works as are reasonably necessary to evaluate the potential for development of any mineral occurrence of possible economic potential occurring in or on the area of the mineral development licence; and

- mining feasibility, environmental, marketing and engineering and design studies; and metallurgical testing.

Work program (renewal)

A work program must accompany the renewal application for the following mining tenements under the MRA:

- an EPM
- an EPC
- an EPS
- an MDL for coal or minerals.

Applicants can lodge a renewal application for an EP or MDL online via the [MyMinesOnline](#) electronic lodgement system or use a paper-based form available from our assessment hubs or on the [department](#) website.

Program period

EP tender application

The period to be covered in the proposed work program (program period) of an EP tender application is outlined in the call for tender. For more information, refer to EP tender application information on the 'Business Queensland' [website](#).

Other EP applications

The program period for a proposed work program is defined by the proposed initial term of an EP. If the term proposed in the EP application is:

- five years—the program period is five years; and
- less than five years—the program period is the period of the term proposed in the EP application, (in whole years).

EP renewal application

The program period for a proposed work program for an EP renewal application is defined by the proposed term of an EP. If the proposed term in the EP application is:

- five years – the program period is five years
- less than five years—the program period is the period of the proposed in the EP renewal application (in whole years).

For EPs granted after the commencement of NROLA, the end of the term cannot be more than 15 years, unless the term has been extended for up to three years due to an exceptional event – refer to MIN/2015/1313 Operational Policy - Exceptional circumstances and exceptional events.

MDL application or renewal

Section 192 of the MRA details the initial term of an MDL if granted, which reflects the Work Program Guideline (MRA)
Department of Resources
March 2021 Version 2.2

proposed initial work program period. The program period for a proposed work program for an MDL application or renewal is defined by the proposed term of an MDL. If the term proposed in the MDL application or renewal is:

- five years—the program period is five years;
- less than five years—the program period is the period of the term proposed in the MDL application; and

more than five years and the Minister approves this term—the program period is the period of the term proposed in the MDL application.

Examples of work program summaries

Table 1 - Example of a summary of an activities-based work program for an EP

Years	Discipline	Activities to be carried out	Units – Number (estimate and description)	Quantity (cumulative) – number and description	Estimated expenditure (human and financial resources) proposed to be committed to exploration during the term
1 – 3	Desktop studies	Geological and geophysical review	# days	N/A	
	Drilling	Reverse circulation drilling	# holes	# metres	
4	Geophysics	Electromagnetic	# lines	# line kilometres	
5	Sample collection and analysis	Trenching General sample assays	# samples	# number of samples (total) # kilograms	

Table 2 – Example of a summary of a work program for an MDL

Years	Discipline	Activities to be carried out and studies to be performed	Units – Number (estimate and description)	Quantity (cumulative) – number and description	Estimated costs of activities for each year of the term
1 – 3	Desktop studies	Geological and geophysical review	# days	N/A	
	Drilling	Reverse circulation drilling	# holes	# metres	
4	Geophysics	Electromagnetic	# lines	# line kilometres	
5	Sample collection and analysis	Trenching General sample assays	# samples	# kilograms	

Table 3 – Example of a summary of an outcomes-based work program for an EP

Years	Outcomes to be pursued	Rationale	Information and data to be provided	Estimated expenditure (human and financial resources) proposed to be committed to exploration during the term
1 - 5	<p><i>[Either proposed outcome for the term or multiple outcomes for the term]</i></p> <p>e.g. To explore for Blair Athol style coal deposits in discrete basins within an estimated depth range of 250 metres within a period of five years.</p> <p>e.g. To explore and test the permit area for primarily base and precious metal mineralisation associated with secondary structures intersecting favourable lithologies (name of host) Secondary outcomes are to test the area for structurally controlled copper deposits and IOCG type mineralisation, specifically targeting rare earth enriched systems.</p> <p>It is planned to generate targets and undertake initial drill testing within the term of the permit.</p>	<p><i>[Strategy for pursuing the outcomes could include an in-depth rationale that demonstrates that the applicant understands the approach required in pursuit of the outcomes to the best of their knowledge]</i></p> <p>e.g. Available data to the southeast and south of the application show relatively closely spaced small to large sub-basins at this position.</p> <p>e.g. Historic exploration data indicates that the area of the permit has the potential to host mineralisation because.....</p> <p>Collation of all historic data will be finalised in the first year with validation sampling and mapping to be undertaken.</p> <p>Existing geophysical data is to be remodelled using</p> <p>Detailed geochemical data is to be collected based on</p> <p>Detailed interpretation, including mapping if appropriate, is planned to generate ranked targets for drill testing based on prospectivity criteria of</p>	<p><i>[Include type of information and data proposed to be collected as an indication of mineralisation during the term. This will assist in the assessment and consideration of whether the work program is appropriate for the area]</i></p> <p>e.g. exploration data and results including outcrop sampling, assays of drill hole intersections, geochemical results and geophysical survey results.</p>	<p>e.g. During the term of the permit (the holder) will commit the following human resources:</p> <ul style="list-style-type: none"> • Exploration manager oversight of activities • Senior geologist lead in all exploration activities • Support staff consisting of field assistants <p>Human resource commitment will be sufficient to meet the outcomes proposed.</p> <p>Estimated financial commitment is proposed to be in the order of: Year 1 - \$ Year 2 - \$ Year 3 - \$ Year 4 - \$ Year 5 - \$</p> <p>Expenditure commitment will be sufficient to meet the outcomes proposed but annual commitment may be subject to change within the term dependant on the level of exploration success.</p>

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In addition to the requirements set out in the above template, include a map that shows where the work is proposed to be carried out in the first two years.

General map requirements

Where [Appendix 1: Work program requirements - guide to content for proposed work program under the MRA](#) requires a map as part of the information to be provided the following are the map's minimum requirements:

- A scale, scale bar and either GDA2020 or geographic coordinates graticule must be included on each map.
- Maps should be provided at a common scale within the work program to allow for comparison - may be supplemented by more detailed maps if appropriate.
- The legend on all maps is to clearly identify all colours, symbols, front/line styles used.
- At least one of the maps must show background topographic information (for example, creeks, rivers) and other significant cultural features (for example, dwellings, town extents, roads) and petroleum leases and pipeline licences.
- All relevant mining tenements are to be shown on all maps.

EP tender applications

Available data about the proposed area

Applicants for an EP tender application are required to provide a detailed outline and technical assessment on the available data researched or captured in relation to the proposed land the subject of an EP tender application.

This should be included or referenced in the [geological model and rationale](#) submitted to support the proposed work program.

When providing the details of any previous exploration work carried out in and around the area applied for use the table format below:

Date	Reference (<i>open file number, internal report etc.</i>)	Company name	Commodity	Work done (<i>mapping, stream sediments, drilling, etc.</i>)	Highlights	Comments
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Special criteria

Tenderers for an EP should be aware that the call for tender may contain special criteria that apply to the call. For example, it may be that applicants will be evaluated against the special criteria of being able to comply with relevant environment, health, safety, cultural heritage and native title requirements. Special criteria will be detailed in the call for tenders and, where applicable, must be addressed by the applicant in the proposed work program.

Maps and plans

Proposed work programs must include a map that shows the geological aspects of the tender area with an outline of the area applied for in the EP tender application. For example, include maps and plans showing the extent of the stratigraphic units included in the geological model.

Appendix 1: Work program requirements - guide to content for proposed work program under the MRA

Activities-based work program for an EP	
Requirement	Information to be provided
1. A work program – a detailed summary of the activities you propose to carry out for an activities-based work program	<ul style="list-style-type: none">• Use the template table provided in this guideline, or download the Work program (initial and later) spreadsheet and list all proposed activities for the term of the EP.• Any submitted work programs must include estimated financial resources to be committed to exploration activities for the term.

<p>2. A rationale document - information relating to the why, when, where and how the applicant proposes to carry out exploration activities in the proposed area of the permit.</p>	<p>The document should provide:</p> <ol style="list-style-type: none"> 1. Rationale - statements on the geological rationale and exploration model proposed for the area of the EP outlining the basis of prospectivity with consideration to the exploration maturity of the area; 2. Previous exploration - details about the previous exploration undertaken including any identified mineral or resources within the area of the EP; 3. Details on exploration activities – information with respect to how, when and where the exploration activities identified in the work program will be carried out in the EP (where does not need to be evidenced by exact markers, the department only requires the general locality in relation to geological formations); 4. Maps - maps that show where all activities identified in the detail above are proposed to be carried out on the EP. The map(s) must include known tenures, infrastructure, access roads, and the locations of proposed surveys, sampling programs or drilling activities. More than one map may be provided, and each map can show the location of proposed activities for the term; 5. Area of permit - a statement justifying the basis for the area of the permit with respect to the proposed exploration program and why the applicant's exploration program will advance the assessment and understanding mineral potential of the EP area; 6. If the proposed permit supports other permits or forms part of a broader project, the work program must describe how it is to operate in the context of the project and clearly show the relationship to the other permits 7. Human and Technical Resources - details the estimated human and technical resources proposed to be committed to exploration activities during the term; and 8. Other studies - detail on resource or infrastructure studies proposed to be undertaken.
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Outcomes-based work program for an EP	
Requirement	Information to be provided
1. A work program – a detailed summary of the outcomes you propose to pursue for an outcomes-based work program	<ul style="list-style-type: none"> • A statement of the proposed outcome/s that should identify those mineral(s) within a specified time period during the term of the permit: <ul style="list-style-type: none"> ○ Aim and How - What the exploration is aiming to achieve and how the exploration activities and techniques are to test the area of the permit area for deposit model or mineralisation style targeted; • What criteria are to be used to determine if additional exploration is required or no further exploration is warranted based on the results of exploration activities to be undertaken. • Synthesis - a table that summarises the outcomes to be pursued, Rationale and Information and data to be provided for the term of the permit. Refer to Table 2 – Example of a summary of an outcomes-based work program for an EP. • Any submitted work program must include estimated financial resources to be committed to exploration for the term.
2. A rationale document - information relating to the why, when, where and how the applicant proposes to pursue the proposed outcomes in the proposed area of the permit.	<ul style="list-style-type: none"> • Outline the exploration strategy and a rationale detailing how the activities proposed will assist in achieving the outcomes stated above. • The strategy is an in-depth rationale for the proposed activities, explaining how those activities will lead to the proposed outcomes and demonstrates that the applicant understands the approach required in pursuit of the outcomes to the best of their knowledge. • The strategy will provide information on: <ul style="list-style-type: none"> ○ the applicant's level of technical knowledge of the geology of the proposed area of the permit including maps and images (e.g. aeromagnetic, radiometric, gravity) that includes known geological information, infrastructure and access roads. ○ where and why you believe this area has a higher discovery potential, <u>for example</u>: <ul style="list-style-type: none"> ○ <i>NNE – SSW deep long lived D1 structures intersected by late-orogenic WNW – ESE transverse release structures,</i> ○ <i>these are interpreted to have juxtaposed favourable lithologies that are recognised in the region to host styles of IOCG mineralisation</i> ○ <i>structural complexity is interpreted to be associated with adjacent zones of magnetite destruction (surveyed low frequency magnetic zones) indicating the presence of an active plumbing system with reactive host rocks and indications of late alteration / fluid movement in the area</i> ○ How the planned exploration activities are to effectively test the area of the permit for the deposit model or mineralisation style being targeted. ○ If the proposed permit supports other permits or forms part of a broader project, the work program must describe how it is to operate in the context of the project and clearly show the relationship to the proposed permits

	<p>The level of mineralisation expected to be discovered or the level of commerciality of the resource expected in accordance with the JORC Code as a result of the exploration (for minerals) and to an acceptable standard (for coal).</p>
<p>3. The information and data proposed to be collected as an indication of mineralisation of the permit during the term.</p>	<ul style="list-style-type: none"> • A description, location and timing of the activities or exploration techniques proposed to be carried out within the term including data to be collected, geochemical analysis to be undertaken including outcrop sampling, assays of drill hole intersections, geochemical results and geophysical survey results. <p>(This will assist in determining the appropriateness of the proposed outcomes in line with the geology knowledge of the permit area)</p>

Work program for an MDL

1. The extent and nature of activities proposed to be carried out during the term that will lead to the evaluation and economic development of the ore body within the area of the MDL.

- A statement specifying the targeted mineral(s) in relation to the work program*.
- A written summary covering all proposed activities for the term of the MDL. Detail the proposed timing of key activities and the general location where the activities will take place.
- Details of the high-priority areas to be explored or further evaluated*.
- A typical overview will detail:
 - the size of the area
 - the perceived prospectivity of the area; that is, by considering the geology of the area and comparing exploration and appraisal activities and programs of work for MDLs with similar geological targets
 - the exploration maturity of the area; that is, the amount of previous exploration or appraisal activities previously carried out on the area.
- If there are no activities proposed to be carried out during the term of the MDL, the reasons why it is appropriate that no activities are proposed for the term of the MDL must be stated. For example, why it is not economically viable to further appraise or develop the mineral resource during the term of the MDL. In such cases, no other requirements of the proposed initial work program, for a proposed MDL, need be addressed.
- The extent and nature of the proposed activities should be developed for effectively determining the resource potential of the area and progressing the resource status of the area. The proposed work program should be consistent with the [geological model and rationale](#) developed.
- Each proposed discipline/activity must be costed, based on current market rates.
- For the term, include:
 - data reviews (geological reviews and assessments - review of available data, including any on-ground scoping and site identification and preparatory mapping),
 - target selection,
 - technical and geophysical surveys including their type (for example, seismic, airborne geophysical, gravity, magnetotellurics) and maps showing the proposed extent of

	<p>operations,</p> <ul style="list-style-type: none"> — sampling (for example, soil, stream, rock chip), — trenching, costeaning, pitting, — bulk sampling. For information and restrictions on bulk sampling that may be carried out on an MDL, see the 'Operational policy Requirements for undertaking bulk sampling on a mineral development licence or exploration permit', — drillholes, including: <ul style="list-style-type: none"> (i) the drilling method (ii) metres (iii) number of holes (iv) stratigraphic targets. <ul style="list-style-type: none"> • Need to include a section for MDL specific activities, such as: <ul style="list-style-type: none"> – Activities that will lead to the evaluation and economic development of the ore body within the area of the MDL may also include: <ul style="list-style-type: none"> ○ metallurgical testing ○ mining feasibility studies ○ environmental studies ○ marketing studies ○ bulk sampling ○ engineering and design studies.
<p>2. For the term of the proposed work program:</p> <p>(a) generally where the activities are proposed to be carried out; and</p> <p>(b) maps that show where the activities are proposed to be carried out.</p>	<ul style="list-style-type: none"> • A broad statement about where proposed survey, sampling or drilling activities will be conducted. This is to assist in further determining the full extent of the ore body within the area of the MDL, or assist in increasing the confidence of the resource status. • An outline illustrating when and where the activities will occur ('where' should be a general locality or geological references). • A map that shows where all authorised activities are proposed to be carried out on the MDL. The map must include known infrastructure, access roads, and the locations of proposed survey, sampling or drilling activities. More than one map may be provided, and each map can show the location of proposed activities for the term.

<p>3. For each year of an MDL, the estimated cost of the activities.</p>	<ul style="list-style-type: none"> • The costs of each proposed work program activity. For example, RC Drilling 2,000 metres total \$400,000; \$10,000/line kilometre for seismic acquisition. • Expenditure should reflect proposed work program activities that will further evaluate the potential development of the ore body within the area of the MDL. This will include on-ground activities and mining feasibility, environmental, marketing, engineering and design studies and metallurgical testing. • The following are not currently considered as allowable expenditure, as they are not work program-related activities: <ul style="list-style-type: none"> — staff costs not directly connected to activities on the MDL — inter-state travel to and from site — environmental or cultural surveys • MDL management costs.
<p>4. Any other information relevant to the matters mentioned in 1 and 2, above.</p>	<ul style="list-style-type: none"> • A statement may explain why the extent and nature of the proposed program adequately tests the potential for mineral discovery or further appraisal of a mineral discovery. • The statement can refer to such factors as the interpretations made and models developed which the holder proposes to test during the term*. This should include the regional geological settings and models for mineralisation including (as appropriate or known): <ul style="list-style-type: none"> — basin models; — structure; — deposits; and — the specific geological aspects of the area. • The statement may explain why the extent and nature of the proposed program is considered appropriate. For example, one of the reasons may address why the proposed initial work program's on-ground activity is appropriate, taking into account the perceived prospectivity of the MDL area, or the results of previous exploration, appraisal or mining activities carried out in the area by other explorers or miners.

IMPORTANT NOTE: Research of existing data and desk-top studies are given a lower priority and are considered a ‘minor’ part of a work program. The work proposed is expected to include a significant ‘on-ground’ direct data collection component, particularly for EP tender applications – to the extent appropriate for project progression. Emphasis should be on substantial exploration activities that will significantly advance the mineral resource knowledge of the area.

- Demonstrate that the information in a proposed work program and detailed in this guideline, have been met. It is understood that the activities may change as exploration or evaluation progresses. In certain parts of the proposed work program, estimates will be accepted if definitive information can’t be provided. However, this needs to be consistent with the [geological model and rationale](#) and geological concepts.
- [Appendix 1: Work program requirements - guide to content for proposed work program under the MRA](#) in this guideline details the various disciplines (proposed authorised activities) that may be selected in the template. [Examples of work program summaries](#) are in Tables 1, 2 and 3 of this guideline.
- The templates also provide for input of the estimated cost of the activities for the term of the proposed work program for an EP and for the activities for each year for an MDL.

* This information, combined, forms the ‘geological model and rationale’ as referenced in this guideline.

Appendix 2: Template information

List of disciplines/activities that may be selected in template

Discipline	Activity	Units	Quantity
Desktop Studies	Consultancy studies	Days	N/A
	Geological and geophysical review	Days	N/A
	Geophysical data reprocessing	Days	N/A
	Gravity data reprocessing	Days	N/A
	Gravity data reprocessing (Fixed cost)	Days	N/A
	Magnetic data reprocessing	Days	N/A
	Magnetic data reprocessing (fixed cost)	Days	N/A
	Seismic data reprocessing	Days	N/A
	Seismic data reprocessing (fixed cost)	Days	N/A
	Technical review	Days	N/A
	Technical review of historic data	Days	N/A
Drilling	Air core drilling	Holes	Metres
	Augur drilling	Holes	Metres
	Diamond	Holes	Metres
	Directional	Holes	Metres

Discipline	Activity	Units	Quantity
	Geotechnical drilling	Holes	Metres
	Hammer	Holes	Metres
	Large diameter	Holes	Metres
	Mixed type	Holes	Metres
	Mud	Holes	Metres
	Percussion	Holes	Metres
	Precollar	Holes	Metres
	Reverse circulation	Holes	Metres
	Rotary air blast	Holes	Metres
	Sonic/vibratory drilling	Holes	Metres
	Tri-Cone	Holes	Metres
Feasibility	Bankable feasibility study (BFS)	Days	N/A
	Definitive feasibility study (DFS)	Days	N/A
	Engineering and design	Days	N/A
	Environmental assessment	Days	N/A
	Market analysis	Days	N/A
	Mine planning	Days	N/A
	Preliminary feasibility study (PFS)	Days	N/A
	Scoping study	Days	N/A
Geophysics	Downhole geophysics	Lines	Line Kilometres
	Downhole survey	Lines	Line Kilometres
	Electromagnetic	Lines	Line Kilometres
	Electromagnetic (low temperature)	Lines	Line Kilometres
	Electromagnetic (transient)	Lines	Line Kilometres
	Electromagnetic (versatile transient)	Lines	Line Kilometres
	Electromagnetic (very low frequency)	Lines	Line Kilometres
	Gravity	Lines	Line Kilometres
	Gravity (gradiometer)	Lines	Line Kilometres
	Ground penetrating radar	Lines	Line Kilometres
	Induce polarisation	Lines	Line Kilometres
	Magnetics	Lines	Line Kilometres
	Magnetotellurics	Lines	Line Kilometres
	Radiometric	Lines	Line Kilometres
	Resistivity	Lines	Line Kilometres
Seismic 2D	Lines	Line Kilometres	

Discipline	Activity	Units	Quantity
	Seismic 3D	Lines	Line Kilometres
	Self potential	Lines	Line Kilometres
	Sub-audio magnetics	Lines	Line Kilometres
Mapping	Alteration	Days	N/A
	Geological	Days	N/A
	Reconnaissance	Days	N/A
	Structural	Days	N/A
Remote Sensing	Aerial photography (broader spectrum imagery)	Lines	Line Kilometres
	Aerial photography (synthetic aperture radar)	Lines	Line Kilometres
	Aerial photography (visible imagery)	Lines	Line Kilometres
	Broader spectrum imagery	Lines	Line Kilometres
	Satellite imagery (visible imagery)	Lines	Line Kilometres
	Synthetic aperture radar	Lines	Line Kilometres
Resource Evaluation	Geological modelling	Days	N/A
	JORC resource estimation	Days	N/A
	Resource modelling	Days	N/A
Sample Analysis	Bulk leach extracted gold	Days	N/A
	Chromatographic soils/gas	Days	N/A
	Coal quality testing	Days	N/A
	Drill sample assays	Days	N/A
	General sample assays	Days	N/A
	Metallurgical studies	Days	N/A
	Mineralogy/petrology	Days	N/A
	Mobile metal ion	Days	N/A
	Multi-element	Days	N/A
	Portable X-ray fluorescence	Days	N/A
	Rock chips	Days	N/A
	Soils	Days	N/A
	Stream sediments (normal)	Days	N/A
Stream sediments (panning)	Days	N/A	
Sample Collection	Costeaming	Samples	Kilograms
	Hand sampling	Samples	Kilograms
	Rock chips	Samples	Kilograms
	Soils	Samples	Kilograms
	Stream sediments (normal)	Samples	Kilograms

Discipline	Activity	Units	Quantity
	Stream sediments (pan concentrate)	Samples	Kilograms
	Trenching	Samples	Kilograms
	Bulk Sampling	Samples	Kilograms
Site Logistics	Access or drill site preparation costs	Days	N/A
	Camp or accommodation costs	Days	N/A
	Rehabilitation costs	Days	N/A
	Vehicle hire costs	Days	N/A
Site Technical	Chip logging	Days	N/A
	Consultancy cost	Days	N/A
	Core logging	Days	N/A
	Geotechnical logging	Days	N/A
	Gridding/surveying cost	Days	N/A
	Internal project staff cost	Days	N/A
	Program supervision	Days	N/A
	Survey general cost	Days	N/A

Document information

Availability and location: External – Business Industry Portal

Owner and approver: Deputy Director-General, Georesources Division

Review date: March 2023

Related documents: Shapefile Guideline, and the tender document relating to a call for tenders for an EPC, made by the Minister for Department of Resources – see QTenders website

Contacts: For help and information about this policy, please contact:

Mineral Assessment Hub on (07) 4447 9230 or email

mineralhub@resources.qld.gov.au. Coal Assessment Hub on (07) 4936 0169 or

email coalhub@resources.qld.gov.au.

For technical support please contact the MinesOnline Helpdesk on +61 7 3199 8133 or email

mines_online@resources.qld.gov.au 8:30 – 4:30 Monday – Friday (excluding public

holidays)