

Northern Territory of Australia – *Mining Management Act*

Section 1 – Project Details

Project Name	Barkly Project
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Authorisation Number	0964-01
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Operator Name	<p>Colour Minerals Pty Ltd</p> <p>Postal Address: PO BOX 1618, WEST PERTH WA 6872</p> <p>Street Address: LEVEL 1, 8 PARLIAMENT PLACE, WEST PERTH WA 6005</p> <p>Phone: 08 94817833</p> <p>Fax: 08 94817835</p> <p>Email: mbennett@kmm.com.au</p>
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Location and Access Details	<p>Project area is accessed via Peko Road and the Gosse River Road heading east from Tennant Creek for 37km then via station access tracks.</p>
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Target Commodity Details	Gold and Copper
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Mining Activities	<p>Drilling: RAB/Air core/RC</p> <p>Geophysical surveys: Ground magnetics, drone magnetics, IP and SAM</p> <p>Geochemical surveys: Soil sampling, rock chip sampling</p> <p>Geological Mapping and reconnaissance</p>
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Proposed Schedule	
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Mining Interest and Land Ownership

List the mining interests (titles), the title holder name/s, the title expiry date and the Property name/Land holder (e.g. pastoralist or Aboriginal land trust) for each title.

Title Number	Title Holder	Expiry Date	Property Name or Land Holder
EL28620	Colour minerals Pty Ltd	14/07/2021	Tennant Creek Station
EL30701	Colour minerals Pty Ltd	19/08/2021	Tennant Creek Station

Organisational Structure

Position Title	Name
Exploration Manager	Martin Bennett
Contract Geologist	To be appointed
Contract Field Assistant	To be appointed
Database Administrator/Alternate contact	Marian McCabe

Section 2 – Operator Self-Assessment of the Environmental Risk

The purpose of this self-assessment is to ensure Operators complete a project risk assessment of potential environmental impacts and are aware of other legislative obligations from various Agencies. As a result of this self-assessment, further information may be required in the form of a management plan to enable full assessment of the MMP. If you have any queries please contact a Mining Officer prior to submitting the MMP. Useful resources to assist with this self-assessment are provided in the User Guide.

Environmental considerations

ASSESSMENT ASPECT	YES or NO	ACTIONS REQUIRED (if answered YES)	APPENDED INFORMATION (Evidence of consultation with DENR and/or management plan)
Step 1: Are there any threatened flora and fauna species or habitats of significance that may occur in the proposed work area?	NO	It is likely threatened species will become apparent during reviews and investigations. Therefore, the Operator must undertake a likelihood analysis, which looks at the likelihood of the species or its habitat occurring at or near the site. If the analysis results in a high likelihood, then a “Significant Impact Assessment” should be undertaken, which may require consultation with the DENR – Flora and Fauna Division. The DENR may recommend a Biodiversity Management Plan – this must be developed and attached to the MMP.	
Step 2: Are there any known declared weeds within the proposed work area?	NO	Under the <i>Weeds Management Act</i> declared weeds are required to be eliminated or controlled by the owner and occupier of land. Seek advice from DENR – Weeds Management to ensure management measures are appropriate for the level of activity proposed and attach a Weed Management Plan (if required).	
Step 3: Will you be using water from bores or other sources for the operation?	YES	<i>Note the Government is proposing to amend the exemption of water licencing under the Water Act for mining activities, including exploration. This section will be updated in light of any changes in the future.</i>	

Environmental assessment and cultural considerations

ASSESSMENT ASPECT	YES or NO	MANAGEMENT REQUIREMENTS
<p>Step 4: Is your project likely to have a significant impact on the environment?</p>	NO	Refer to the NTEPA Environmental Factors and Objectives Guideline.
<p>Step 5: Are there Aboriginal sacred sites in the Project area?</p>	YES	Sacred Sites are protected under the NT <i>Aboriginal Sacred Sites Act</i> and administered by the Aboriginal Areas Protection Authority (AAPA). It is recommended that advice be sought from AAPA in relation to sacred site protection.
<p>Step 6: Are there archaeological and heritage sites in the Project area?</p>	NO	Heritage and archaeology sites are protected in the NT. NT Heritage Branch of the Department of Natural Resources and Environment (DENR) administers the <i>Heritage Act</i> . Seek advice in relation to protection of heritage and archaeological sites.

Section 3 – Amendments

As per Section 41(3) of the *Mining Management Act*, an MMP reviewed and amended under Section 41(1)(a) is to clearly identify amendments made.

Section	Amendment
Section 1	Organisational structure
Section 4	New activities proposed
Section 1	Mining interest and Land ownership
Section 5	Previous disturbance

Section 4 – Activities Proposed

Mining Interests (i.e. titles)	EL28620	EL30701	EL	EL
Number and type of proposed drill holes	48 RC	64 RAB		
Maximum depth of proposed holes (m)	300	60		
Number and size of drill pads to be cleared (Length:20 m x Width: 15m)	48			
Total area of drill pads to be cleared (ha)	1.44			
Is drilling likely to encounter groundwater? (Y, N, unsure)	Yes	No		
Number of costeans (Length: m x Width: m x Depth: m)				
Number of bulk sample pits				
Total bulk sample (tonnes) (Length: m x Width: m x Depth: m)				
Bulk sample pits approved under <i>Mineral Titles Act</i> ? (Y or N)				
Length of line/track clearing (km: 2.4 x Width: 3 m)	0.72	1.23		
Camp area to be cleared (ha)				
Camp Infrastructure (i.e. demountable, tents)				
Previous disturbance yet to be remediated on title (ha) if known	0.2			
Other				
Total area disturbed proposed (ha)	2.36	1.23		

Section 5 – Previous Disturbance (for existing Authorisations only)

Mining Interests (i.e. titles)	EL28620	EL	EL	EL
Number/type of holes drilled	7			
Maximum depth of holes drilled (m)	253			
Number of holes remediated (i.e. plugged/capped)	7			
Number and size of drill pads cleared (Length: 20 m x Width:15m)	7			
Total area of drill pads cleared (ha)	0.2 Ha			
Total area of drill pads remediated (ha)	0.2 Ha			
Was groundwater encountered? (Y or N)	Y			
Length of line/track cleared (Length: km x Width: m)				
Length of line/track remediated (Length: km x Width: m)				
Number of costeans excavated (L: m x W: m x D: m)				
Number of costeans remediated				
Total bulk sample pits excavated (Length: x Width: x Depth: m)				
Total bulk sample pits remediated				
Camp area/s cleared (ha)				
Camp area/s remediated (ha)				
Total area disturbed (ha)				
Total area remediated (ha)				

Section 6 – Environmental Management

By checking these boxes, you are agreeing to implement the following minimum environmental management standards on the project area. Where boxes have been left unchecked, justification is required.

6.1	✓	Blade-up approach for clearing will be used (i.e. no windrows, leave root stock and topsoil)
6.2	✓	Significant vegetation will be avoided during clearing (i.e. large trees, specimens providing habitat or food sources, riparian vegetation, and threatened species)
6.3	✓	Vegetation clearing during, and immediately after rainfall events, will be avoided
6.4	✓	Vegetation clearing will be kept to the minimum required to safely traverse vehicles and drill rigs along tracks and drill pads
6.5	✓	Where blade-up techniques cannot be employed, topsoil and vegetation will be stockpiled appropriately for remediation purposes
6.6	✓	All employees and contractors will be trained and inducted in relation to the management of environmental risks in the work area, including weeds, waterways, threatened species, soil erosion, sacred sites and heritage areas
6.7	✓	Sumps will be lined or tanks of appropriate size to contain water, sediment and drilling fluids encountered during drilling, will be used
6.8	✓	Sumps, drill holes, and fuel stores will be located away from environmentally significant areas and water courses
6.9	✓	Excavations (sumps, costeans and pits) will be appropriately ramped to allow fauna egress
6.10	✓	Drill holes will be securely capped immediately after drilling
6.11	✓	Vehicle hygiene measures will be employed to prevent the introduction and spread of invasive species and pathogens when mobilising vehicles and equipment from one location to another
6.12	✓	Hydrocarbon spills will be minimised using liners and drip trays under machinery, and appropriately sized spill-kits available in the event of a spill
6.13	✓	Hazardous substances (including hydrocarbons) will be stored and handled in accordance with relevant Australian Standards
6.14	✓	Hydrocarbons will be stored in lined and bunded areas
6.15	✓	Waste will be stored securely while on-site to minimise windblown rubbish and access by feral animals
6.16	✓	Waste will be removed off-site and disposed of at an appropriate waste management facility
6.17	✓	All environmental incidents will be reported to the Department in accordance with Section 29 of the <i>Mining Management Act</i> .

Justification and alternative management measures:

Section 7 – Remediation and Closure

By checking these boxes, you are agreeing to implement the following minimum remediation standards on the project area. Where boxes have been left unchecked, justification is required.

7.1	✓	Drill holes plugged below ground level at a minimum depth of 0.4 metres and soil mounded to prevent subsidence, within 6 months of completion of drilling
7.2	✓	Drill samples/spoil returned down drill holes, buried in sumps, or removed from site
7.3	✓	All drill hole and access markers including flagging tape, wooden markers and star pickets will be removed from site
7.4	✓	Re-contouring of cut and fill drill pads will be consistent with the surrounding terrain
7.5	✓	Ripping/scarifying of drill pads, and compacted areas along the contour (on sloping ground) and cross-ripping (zig-zag) along tracks
7.6	✓	Tracks will be remediated, including pushing in all windrows
7.7	✓	Appropriate erosion and sediment controls will be installed where erosion is evident or likely to occur
7.8	✓	All tracks will be remediated unless otherwise agreed in writing by the land holder or appropriate third party
7.9	✓	Access through watercourses will be removed and banks restored
7.10	✓	No erosion is occurring in disturbed areas, on tracks and in remediated areas
7.11	✓	All excavations backfilled within 6 months of completion of drilling
7.12	✓	All water bores decommissioned unless otherwise agreed in writing by the land holder or appropriate third party. The bore must comply with the Minimum Construction Requirements for Water Bores in Australia and may require permits or licenses under the <i>Water Act</i>
7.13	✓	All rubbish and infrastructure will be removed from site
7.14	✓	Replacement of topsoil and vegetation
7.15	✓	Contaminated soils (e.g. hydrocarbon or hazardous chemicals) will be remediated or removed from site
7.16	✓	Monitoring will be undertaken following the wet season or a significant rainfall event




Justification and alternative management measures:

Section 8 – Required Attachments


8.1		Security Calculation Spreadsheet
8.2		Nomination of Operator Form
8.3		Spreadsheet with coordinates of proposed drill holes or polygons of target areas
8.4		Google Earth KML/shape files/track logs of proposed tracks and camp sites
8.5		<p>A map of the work area(s) showing:</p> <ol style="list-style-type: none"> 1. title boundaries and title numbers 2. current and proposed drill holes, or polygons of target areas 3. current and proposed tracks 4. remediated areas 5. camp sites 6. sacred/heritage sites 7. environmental constraints
8.6		Remediation Register (for existing Authorisations)
8.7		Photographs of remediation work
8.8		Radiation Management Plan (if applicable)

Section 9 – Declaration

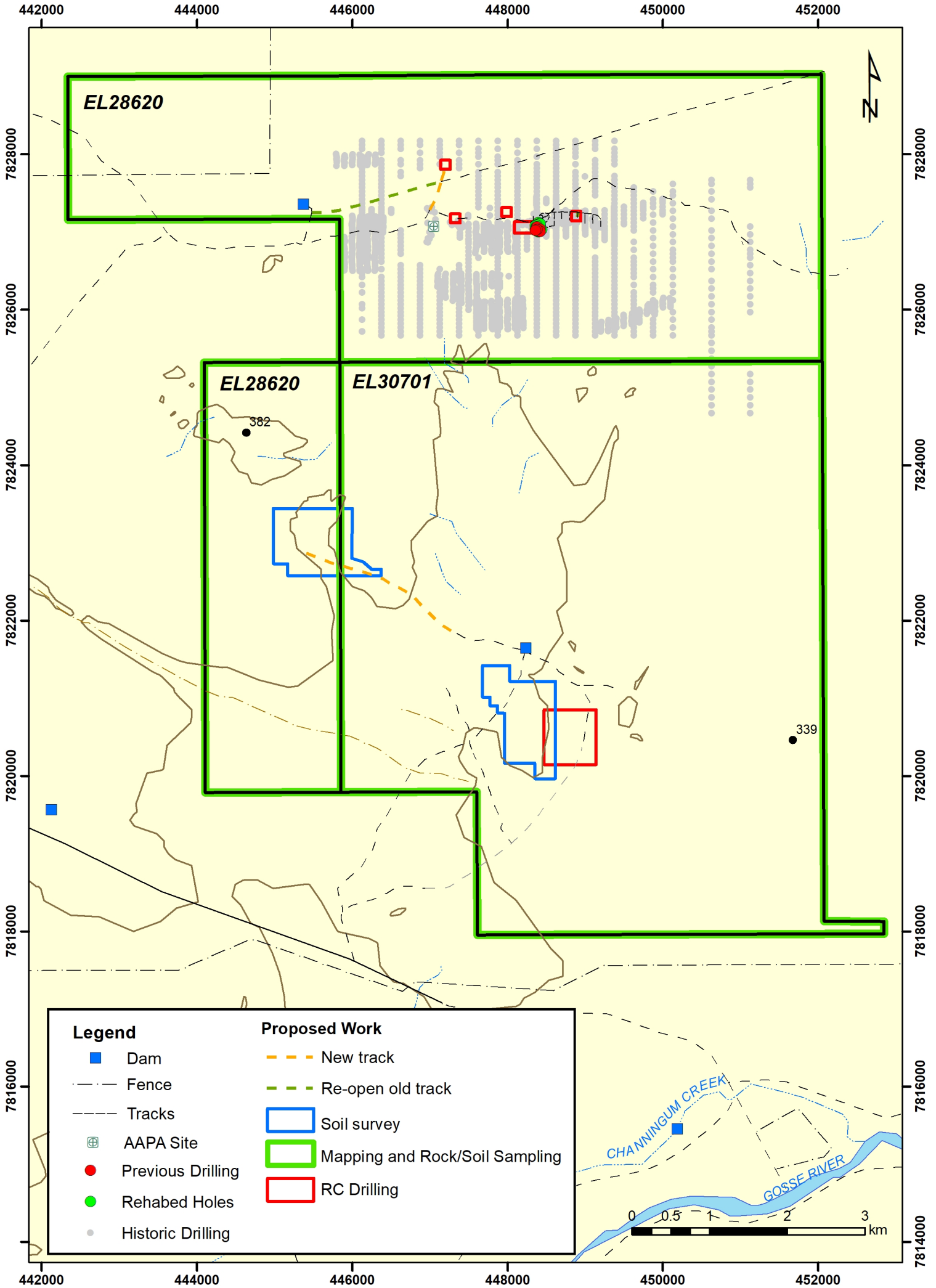
The Mining Management Plan must be endorsed by a senior representative of the company who has the appropriate level of authority to do so.

	Author	Reviewed by	Approved by
Date	10 th June 2020	22 nd June 2020	22 nd June 2020
Name	Marian McCabe	Martin Bennett	Martin Bennett
Signature			

I Martin Bennett – Exploration Manager, declare that I have the authority to make the commitments contained in this mining management plan on behalf of the company. To the best of my knowledge the information contained in this plan is true and correct and commit to undertake the works in accordance with the agreed minimum standards and all relevant Northern Territory and Commonwealth Government legislation.

SIGNATURE: 

DATE: 22nd June 2020



Appendix x exploration remediation register

Use a tick (✓) or cross (X), Yes or No, or date completed. Please remove example entries from tables prior to submission.

Drill Hole			Remediation									
ID Number or Name	Date Drilling Completed	Coordinates (GDA94 UTM)	Capped or Plugged	Spoil buried or backfilled	Sample bags or core removed	Sumps backfilled	Topsoil and Vegetation Replaced	Drill pad ripped	Access track ripped	Rubbish Removed	Radiation is within background levels ¹	Signoff and Comments
BBRC0014	16/11/2019	448379.92 E 7827065.23 N	✓	X	X	X	X	X	X	✓		Waiting on the end of the dry season and access to machinery.
BBRC0015	17/11/2019	448399.95 E 7827031.04 N	✓	X	X	X	X	X	X	✓		Waiting on the end of the dry season and access to machinery.
BBRC0016	18/11/2019	448419.92 E 7827032.49 N	✓	X	X	X	X	X	X	✓		Waiting on the end of the dry season and access to machinery.
BBRC0017	19/11/2019	448420 E 7827002.18 N	✓	X	X	X	X	X	X	✓		Waiting on the end of the dry season and access to machinery.
BBRC0018	21/11/2019	448379.92 E 7827028.52 N	✓	X	X	X	X	X	X	✓		Waiting on the end of the dry season and access to machinery.
BBRC0019	22/11/2019	448360.07 E 7827020.81 N	✓	X	X	X	X	X	X	✓		Waiting on the end of the dry season and access to machinery.

Appendix x exploration remediation register

BBRC0020	22/11/2019	448378.79 E 7827119.72 N	✓	X	X	X	X	X	X	✓		Waiting on the end of the dry season and access to machinery.
<p>① Dose rate readings are only required where Naturally Occurring Radioactive Material (NORM) was found and/or explored for. Readings must be in $\mu\text{Sv/hr}$.</p>												

Drill Hole			Post-closure Monitoring (after 1 year)						
ID Number or Name	Date Drilling Completed	Coordinates (GDA94 UTM)	Date of Monitoring	Revegetation of site complete	Soil erosion evident	Weeds identified	Subsidence evident	Radiation is within background levels ^①	Signoff and Comments
BBRC0014	16/11/2019	448379.92 E 7827065.23 N							
BBRC0015	17/11/2019	448399.95 E 7827031.04 N							
BBRC0016	18/11/2019	448419.92 E 7827032.49 N							
BBRC0017	19/11/2019	448420 E 7827002.18 N							
BBRC0018	21/11/2019	448379.92 E 7827028.52 N							
BBRC0019	22/11/2019	448360.07 E 7827020.81 N							
BBRC0020	22/11/2019	448378.79 E 7827119.72 N							

^① Dose rate readings are only required where Naturally Occurring Radioactive Material (NORM) was found and/or explored for. Readings must be in µSv/hr.

