



**NSW  
Resources  
Regulator**

**COMPLIANCE AUDIT PROGRAM**

# **EL8153 SUGARLOAF PROJECT**

**Krakatoa Australia Pty Ltd**



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# 1. Introduction

## 1.1. Background

Exploration licence 8153 (EL8153) was granted to Locksley Holdings Pty Ltd in August 2015. The licence was transferred to Krakatoa Australia Pty Ltd in January 2020. The exploration area is in an agricultural area about 27 kilometres north-west of Orange in the central west region of NSW.

As part of the compliance audit program, an audit of the exploration activities associated with the Sugarloaf Project within EL8153 was undertaken on 27 April 2022 by the Resources Regulator within the Department of Regional NSW (the Department).

## 1.2. Audit objectives

The objectives of the audit were to:

- undertake a compliance audit of the Krakatoa Australia Pty Ltd exploration activities against the requirements of the *Mining Act 1992* and the conditions of the exploration licence and activity approvals issued pursuant to that Act.
- assess the operational performance of the exploration activities and the ability of the licence holder and/or its operator to implement management systems and controls to provide for sustainable management of the operations.

## 1.3. Audit scope

The scope of the audit included:

- the exploration activities associated with the Krakatoa Sugarloaf exploration project including:
  - exploration activities within EL8153 including a selected sample of exploration drillholes
  - borehole sealing and rehabilitation activities for selected drilling activities undertaken since April 2019
- A review of documents and records pertaining to the exploration activities
- The assessment of compliance for the period commencing 27 April 2019 and ending 27 April 2022.

## 1.4. Audit criteria

The audit criteria against which compliance was assessed included:

- *Mining Act 1992*, specifically, Sections 5, 30, 140, 163C to 163E, 163G, 378D
- Mining Regulation 2016, specifically clauses 59 to 68
- conditions attached to EL8153 (granted 23 August 2013 and last renewed 17 November 2020)
- exploration activities application (ESF4) dated 20 November 2019 for two diamond drill holes on the Meru property, and associated approval dated 1 January 2020 (MAAG0005085)
- exploration activities application (ESF4) dated 7 February 2020 for 127 aircore holes on six properties within EL8153, and associated approval dated 21 February 2020 (MAAG0005882)
- exploration activities application (ESF4) dated 26 March 2021 for up to a maximum of 120 air core holes and up to a maximum of 20 combined RC and diamond drill holes, and associated approval dated 14 April 2021 (MAAG0010502)
- *Exploration Code of Practice: Environmental Management* (Version 3, September 2017)
- *Exploration Code of Practice: Rehabilitation* (Version 3, September 2017)
- *Exploration Code of Practice: Community Consultation* (Version 1.1, May 2016)
- *Exploration Code of Practice: Produced Water Management, Storage and Transfer* (Version 3, September 2017)
- *Exploration Reporting: A guide for reporting on exploration and prospecting in New South Wales* (Version 2, March 2016)
- *Exploration Guideline: Annual activity reporting for prospecting titles* (Version 3.0, December 2020) published by Department of Regional NSW
- *ESG4: Guideline for preparing an environmental and rehabilitation compliance report* (Version 2.3, March 2019) published by NSW Resources Regulator.

## 1.5. Publishing and disclosure of information

This audit report was published on the Regulator's website consistent with:

- Section 365 of the *Mining Act 1992*
- *Resources Regulator's [Public comment policy](#)*
- *Government Information (Public Access) Act 2009.*

## 2. Audit methods

The audit process involved the interview of site personnel, a review of documentation and samples of records provided by the licence holder and/or operator to determine the level of compliance of the operations and assess the status of the operational performance. The audit process and methodology are described in more detail in the sections below.

### 2.1. Opening meeting

An opening meeting was held onsite on 27 April 2022. The audit team was introduced, and the scope of their responsibilities was conveyed to the auditees. The objectives and scope of the audit were outlined. The methods to be used by the team to conduct the audit were explained, including the interview of personnel, review of documentation, examination of records and a site inspection to assess specific compliance requirements.

### 2.2. Site interviews and inspections

#### 2.2.1. Data collection and verification

Where possible, documents and data provided during the audit process were reviewed electronically on the day. Several documents were unable to be reviewed on the day and were provided following the audit site inspection.

All information obtained during the audit process was verified by the audit team where possible. For example, statements made by site personnel were verified by viewing documentation and records, including site photographs, where possible. Where suitable verification could not be provided, this has been identified in the audit findings as not determined.

#### 2.2.2. Site inspections

A site inspection was undertaken of the following sites:

- SDD001 – diamond drill hole, drilling completed and site rehabilitated
- SDD002 – diamond drill hole, drilling completed and site rehabilitated, evidence of small diesel spill observed on site
- SAC032 – air core hole, drilling completed and site rehabilitated



- SAC031 - air core hole, drilling completed and site rehabilitated.

## 2.3. Closing meeting

A closing meeting was held onsite on 27 April 2022. The objectives of this meeting were to discuss any outstanding matters, present preliminary findings and outline the process for finalising the audit report.

## 2.4. Compliance assessment definitions

The reporting of results from the compliance audit was determined based on the definitions presented below in Table 1.

Table 1 Compliance assessment criteria

ASSESSMENT	CRITERIA
<b>Compliance</b>	Sufficient and appropriate evidence is available to demonstrate the particular requirement has been complied with.
<b>Non-compliance</b>	<p>Clear evidence has been collected to demonstrate the particular requirement has not been complied with. There are three subcategories of non-compliance reflecting the severity and level of risk associated with the non-compliance:</p> <p><b>NC1</b> – the absence of planning or implementation of a required operational element which has the potential to result in a significant risk.</p> <p><b>NC2</b> – an isolated lapse or absence of control in the implementation of an operational element which is unlikely to result in a significant risk.</p> <p><b>NC3</b> – an administrative or reporting non-compliance which does not have a direct environmental or safety significance.</p> <p>Note: The identification of a non-compliance in this audit may or may not constitute a breach of, or offence under, the <i>Mining Act 1992</i>. Non-compliances identified in this audit report may be further investigated by the Regulator and regulatory actions may be undertaken.</p>
<b>Observation of concern</b>	<p>Where an auditee may be compliant at the time of the audit but there are issues that exist that could result in the potential for future non-compliance if not addressed.</p> <p>Observation of concern was also used where an issue may not have particular compliance requirements, but which was not conducive to good management or best practice.</p>

ASSESSMENT	CRITERIA
<b>Suggestion for improvement</b>	Where changes in processes or activities inspected or evaluated at the time of the audit could deliver improvement in relation to risk minimisation, sustainable outcomes and management practices.
<b>Not determined</b>	<p>The necessary evidence has not been collected to enable an assessment of compliance to be made within the scope of the audit.</p> <p>Reasons why the audit team could not collect the required information include:</p> <ul style="list-style-type: none"> <li>■ insufficient information on the file relating to the period covered by the audit or insufficient evidence collected to reach a conclusion</li> <li>■ the wording on the criteria (approval condition) meant that no evidence could be gathered, or it was too difficult to gather the evidence.</li> </ul> <p>A ‘not determined’ assessment was also made where the condition was outside the scope of the audit.</p>
<b>Not applicable</b>	<p>The circumstances of the authorisation or licence holder have changed and are no longer relevant ( e.g. no longer mining, mining equipment and plant has been removed).</p> <p>An invoking element in the criteria was not activated within the scope of the audit.</p>

## 2.5. Reporting

Following completion of the audit, the audit checklists were completed, and audit notes were reviewed to compile a list of outstanding matters to be noted in the audit report. This report was prepared to provide an overview of the operational performance of the site in relation to the exploration activities and identify any non-compliances or observations of concern noted by the auditors during the site inspection, documentation review, and interviews.

The draft audit findings were forwarded to Krakatoa for comment. Consideration was given to the representations made during the finalisation of the audit report as discussed in the audit findings.

## 3. Audit findings

### 3.1. Work program

Condition 1 of EL8153 required the licence holder to carry out the operations described in the approved work program. Work program WP-EL8153-2015-2020 was approved by the (then) division of Resources and Energy within the Department of Industry on 10 November 2015 as part of the renewal of EL8153. A review of this work program undertaken by Mining Exploration and Geoscience (MEG) during assessment of the renewal application showed that most of the work program was completed and exploration progress was considered satisfactory.

The annual report for the reporting period 23 August 2019 to 22 August 2020 described the exploration activities completed during the period, including:

- aircore drilling
- geological mapping
- rock chip sampling
- soil sampling
- geochemical analysis
- drone and fixed wing aeromagnetic surveys
- deep ground penetrating radar survey.

A further work program was submitted with the application for renewal approved on 17 November 2020. This was assessed to be satisfactory and approved as part of the 2020 renewal of EL8153. Evidence was available to confirm that exploration activities were progressing. Krakatoa was granted funding under the NSW Government's New Frontiers Co-operative Drilling Program for 2 diamond drill holes in the Sugarloaf prospect in EL8153. Both of these holes were drilled and analysis was progressing. Exploration data was maintained by the Krakatoa geologists and submitted to MEG with the annual activity reports as required.

### 3.2. Access agreements

Section 140 of the *Mining Act 1992* stated, 'the holder of a prospecting title must not carry out prospecting operations on any particular area of land except in accordance with an access arrangement

or arrangements applying to that area of land'. The access arrangement was required to be agreed in writing between the holder of the prospecting title and each landholder of that area of land.

Krakatoa provided land tenure mapping to identify landownership within the exploration licence area. This mapping clearly identified which properties were the subject of land access agreements and which properties had not yet had access agreements negotiated. It was noted that written land access agreements were in place for the 2 properties subject to exploration activities on the Sugarloaf prospect.

The land access agreements reviewed during the audit were generally noted to be prepared using a standard template. Landholders for the 2 properties at the Sugarloaf prospect had negotiated additional site-specific conditions to their agreements. The Krakatoa exploration geologist was well aware of the additional requirements for access onto the properties concerned and advised that no issues were raised by the landholders during exploration activities. This was confirmed by one landholder during an opportunistic meeting on site.

### 3.3. Native title and exempted areas

Condition 2 of EL8153 required the licence holder to obtain the prior written consent of the Minister before carrying out any activities on land on which native title had not been extinguished. Similarly, Section 30 of the *Mining Act 1992* required the consent of the Minister before a licence holder undertook any activities within an exempted area.

Krakatoa staff advised that exploration activities were being conducted in areas of freehold land. A review of the mapping data showed that no holes had been drilled in any exempted areas within the licence area. No further approvals under section 130 of the *Mining Act 1992* were required.

Krakatoa staff advised that most of the licence area was under freehold title where native title had generally been extinguished. Although not a compliance requirement, confirmation of extinguishment had not been sought from MEG. No further approvals under Condition 2 of the licence were required.

### 3.4. Community consultation

Condition 3 of EL8153 required the licence holder to carry out community consultation in relation to the planning and conduct of exploration activities. Community consultation was required to be carried out in accordance with the requirements of *Exploration Code of Practice: Community Consultation*.

An assessment against the mandatory requirements of the code of practice was undertaken as documented in the following sections.

### 3.4.1. Risk assessment

Mandatory requirement 1 of the code of practice required the licence holder to conduct a risk assessment to identify and consider the range of opportunities and potential threats associated with community consultation and engagement.

Krakatoa had undertaken an assessment of the activity impact level in accordance with the guidance in the code of practice. The activity impact level was assessed as medium. In addition to assessing the activity impact level, Krakatoa undertook a community risk assessment that identified the risks, threats and opportunities associated with community consultation for the exploration activities. The activity impact level assessment and the risk assessment were both observed to be documented in the community consultation strategy.

### 3.4.2. Community consultation strategy

Mandatory requirement 2 required the preparation of a community consultation strategy to manage the risks identified in the risk assessment. Mandatory requirement 3 set out the requirements for preparation of the community consultation strategy.

Krakatoa prepared a community consultation strategy and plan for the exploration activities on EL8153. Revision 2 of the strategy dated April 2022 was reviewed during the audit. The consultation strategy was found to be generally consistent with mandatory requirement 3. For example, the strategy was noted to include:

- objectives for the consultation strategy – documented in section 1
- identification and analysis of stakeholders – documented in sections 4 and 5
- proposed community consultation activities – documented in section 7
- mechanisms for revising the consultation strategy – documented in section 3.

### 3.4.3. Implementation and reporting

Mandatory requirement 4 required the licence holder to implement, monitor and report annually on the community consultation strategy.

Evidence was available to confirm implementation of the community consultation strategy. Consultation records were noted to be recorded on an excel spreadsheet that detailed the stakeholder details, date, issues raised, and responses given.

Annual community consultation reports were prepared and submitted, generally in accordance with the reporting guidance in Appendix 2 of the code of practice.

### 3.5. Exploration activity approvals

Section 23A of the *Mining Act 1992* required the holder of an exploration licence to obtain an activity approval prior to carrying out assessable prospecting operations.

Exploration activity approvals were sought and granted for exploration activities. Recent exploration activity approvals included:

- exploration activities application (ESF4) dated 20 November 2019 for two diamond drill holes on the Meru property, and associated approval dated 1 January 2020 (MAAG0005085)
- exploration activities application (ESF4) dated 7 February 2020 for 127 aircore holes on six properties within EL8153, and associated approval dated 21 February 2020 (MAAG0005882)
- exploration activities application (ESF4) dated 26 March 2021 for up to a maximum of 120 air core holes and up to a maximum of 20 combined RC and diamond drill holes, and associated approval dated 14 April 2021 (MAAG0010502).

Generally, evidence was provided to indicate that the exploration activities were carried out in accordance with the description provided in the applications and in accordance with the approvals given.

### 3.6. Environmental management

Condition 4 of EL8153 required the licence holder to prevent or minimise so far as is reasonably practicable, any harm to the environment arising from the activities carried out under the licence. Condition 2 of the exploration activity approval required the licence holder to carry out the activity in compliance with Part B of the *Exploration Code of Practice: Environmental Management*.

No evidence of significant environmental harm beyond that approved in the exploration activity approvals was observed at the sites visited during the site inspection. Drilling was completed and sites were rehabilitated.

The exploration drilling program was observed to be generally undertaken in accordance with the Exploration Code of Practice: Environmental Management as documented in the following sections.

### 3.6.1. Use of chemicals, fuels and lubricants

Mandatory requirements 1.1 to 1.4 identified the requirements for the management of chemicals, fuels and lubricants used during exploration activities.

The Krakatoa exploration manager advised the drilling fluids used were biodegradable. Evidence was provided to demonstrate that site audits were conducted by the exploration manager for each diamond drill hole. The checklists used to document these site audits were noted to include checking the fuel and chemical storages on site.

A minor oil or diesel spill was observed at site SDD002 (Figure 1). This spill was unlikely to result in material environmental harm and was not considered to be reportable under condition 7 of EL8153 because it was not reportable under the *Protection of the Environment Operations Act 1997*. The Krakatoa exploration manager was not previously aware of the spill but immediately cleaned up the area before the audit team left site. While Krakatoa had systems in place to identify and manage environmental incidents such as spills that were communicated to the driller during induction, the procedure was not implemented by the driller on this occasion. This was raised as observation of concern number 1. Krakatoa should ensure that contract drillers report and clean up any spills. Following the audit, the Krakatoa exploration manager advised he had followed up with driller to reinforce the requirement to report all spills and leaks.

Figure 1 Minor diesel spill at site SDD002



### 3.6.2. Water

Mandatory requirements 2.1 and 2.2 required the licence holder to implement all measures to prevent, so far as reasonably practicable, causing adverse impacts on water quality and quantity, including groundwater levels and pressure.

The Krakatoa exploration manager advised that water for exploration drilling operations was sourced from a water trough on the property with the consent of the landholder. The drilling locations inspected were observed to be not within proximity to any surface water sources and no evidence of impacts to water quality or quantity were observed.

### 3.6.3. Noise and vibration

Mandatory requirement 3.1 required the licence holder to implement all practicable noise management measures to ensure that noise levels meet acceptable noise criteria for sensitive receivers.

The Krakatoa exploration manager advised that the risk of adverse noise impacts was very low given the location of the exploration drilling programs in relation to the nearest sensitive receptors. As a result, specific controls for management of noise impacts were not considered to be required.

### 3.6.4. Air quality

Mandatory requirement 4.1 required the licence holder to implement all measures to prevent, so far as practicable, pollution caused by dust and other air pollutants.

The Krakatoa exploration manager advised that the risk of adverse air quality impacts was very low given the location of the exploration drilling programs in relation to the nearest sensitive receptors. As a result, specific controls for management of air quality impacts were not considered to be required.

### 3.6.5. Waste management

Mandatory requirement 5.1 required the licence holder to manage all waste in a manner which did not, as far as practicable, cause harm to the environment.

Waste streams generated from the exploration activities included:

- general domestic waste
- sample bags
- PVC and poly pipe from drill operations.



Generally, waste was removed from the drill sites for disposal at the Orange waste management facility. Waste receipts were available to confirm disposal at a licenced waste management facility.

The exploration manager advised that a roll of poly pipe from the diamond drilling operations, observed in the paddock during the audit, was left on site for the landholder to reuse.

### 3.6.6. Vegetation clearance and surface disturbance

Mandatory requirements 6.1 to 6.4 required the licence holder to:

- minimise the extent of any vegetation clearing and surface disturbance to as low as practicable
- implement all measures to prevent, so far as practicable:
  - adverse impacts to fauna caused by vegetation clearing or surface disturbance
  - causing any land degradation or pollution of land and water
  - harm to the environment when disturbing land in areas of potential or actual acid sulfate soils.

The Krakatoa exploration manager advised that generally, clearing of vegetation was not required for any of the drill sites. Drill holes were planned to avoid significant vegetation where possible. The drill rig and other vehicles were driven over the groundcover vegetation to each site with no formal access track construction required. Existing tracks were used wherever possible to minimise environmental impacts.

Observations made during the audit site inspection generally confirmed that there was no clearing of vegetation and minimal surface disturbance for the holes inspected.

### 3.6.7. Roads and tracks

Mandatory requirements 7.1 to 7.5 required the licence holder to:

- consult with relevant landholders prior to establishing any new roads or tracks
- plan, design, construct and use roads and tracks in a manner which minimises the area and duration of disturbance
- construct any crossing of rivers, permanent and intermittent water lands and wetlands to prevent impacts on fish habitats

- refrain from using any unsealed road or track during wet conditions to prevent damage to that road or track
- repair all damage to existing roads and tracks resulting from exploration activities.

The Krakatoa exploration manager advised that generally, tracks used to access drill sites were existing farm tracks. Access to sites was generally through driving over existing groundcover vegetation. Observations made during the audit site inspection confirmed that tracks used for drilling operations had generally had vegetation re-established, with minimal evidence of vehicular traffic.

The Krakatoa exploration manager advised that weather forecasts were monitored whenever site activities were planned. Generally, the tracks used were trafficable in wet weather, and although the tracks used during the site inspection were observed to be muddy, there was no evidence of significant damage to the tracks. The exploration drilling operations were completed and no further vehicular traffic from exploration vehicles was likely to be required.

### 3.6.8. Weeds, pest animals and disease

Mandatory requirement 8.1 required the licence holder to implement all practicable measures to prevent the introduction and spread of weeds, pest animals and animal and plant diseases.

The risk of weeds affecting rehabilitation progress was identified in the Krakatoa environmental risk assessment. Vehicle washdown was the primary control identified for reducing weed introduction. For the exploration programs, Krakatoa maintained a vehicle washdown spreadsheet that recorded details of the washdown of exploration vehicles accessing the site. Car wash receipts were also maintained as evidence of the implementation of the vehicle washdown procedure.

Some weed growth was observed on the areas disturbed by drilling operations (Figure 2), but the weeds were consistent with weeds observed in other parts of the property unaffected by drilling operations. The Krakatoa exploration manager advised that the landholder was consulted and agreed to manage the weeds in conjunction with his own weed management activities over the remainder of the property.

Figure 2 Weeds at site SDD001



### 3.6.9. Livestock protection

Mandatory requirement 9.1 required the licence holder to implement all measures to prevent, as far as practicable, causing adverse impacts to livestock.

During the audit site inspection, no livestock was observed in the paddocks where drilling had taken place. The Krakatoa exploration manager advised that, generally, the landholder moved livestock to other paddocks during drilling. Sumps were not used for the drilling programs and no specific controls were required.

### 3.6.10. Cultural heritage

Mandatory requirement 10.1 required the licence holder to implement all measures to prevent, so far as practicable, harm to Aboriginal cultural heritage and non-indigenous cultural heritage.

Searches of the Aboriginal heritage information system (AHIMS) were conducted as part of the preparation of applications for exploration activity approvals. One Aboriginal site was identified. The Krakatoa exploration manager advised that drilling was not conducted in the vicinity of the known heritage item and this was confirmed by mapping.

### 3.6.11. Fire prevention

Mandatory requirement 11.1 required the licence holder to implement all measures to prevent, as far as practicable, the ignition and spread of fire.

The Krakatoa exploration manager advised that the diamond drilling was conducted outside of the fire danger period. Wet weather before and during the drilling program reduced the risk of fire. Despite the low risk, Krakatoa required the drilling contractor to use a rig with fire suppression and fire extinguishers. This was noted to be documented in the environmental risk assessment prepared for the drilling programs.

### 3.6.12. Risk assessment

Mandatory requirement 12.1 required the licence holder to monitor the risks associated with activities and, if the risk associated with an activity changes, implement revised environmental management controls.

It was noted that Krakatoa prepared an environmental and rehabilitation risk assessment for the 2021 AC and diamond drilling programs. The risk assessment identified key risks and proposed controls to manage any potential adverse impacts. Evidence was generally available from observations made on site or through a review of records, to confirm implementation of the controls.

## 3.7. Security deposit

Condition 5 of EL8153 required the licence holder to provide a security deposit to secure funding for the fulfilment of obligations under the licence.

The security amount required for EL8153 was \$51,600 which department records confirmed was held. The security was increased from \$10,000 in April 2021 following approval of exploration activity applications for the AC and diamond drilling programs.

## 3.8. Rehabilitation

Condition 6 of EL8153 required the licence holder to carry out rehabilitation of all disturbance caused by activities carried out under the licence in accordance with the requirements of the *Exploration Code of Practice: Rehabilitation*.

An assessment against the mandatory requirements of the code of practice was undertaken for the 2021 drilling programs as documented in the following sections.

### 3.8.1. Risk assessment

Mandatory requirement 1 required the licence holder to conduct a risk assessment to evaluate the range of potential threats and opportunities associated with rehabilitating disturbed areas to a condition that could support the intended final land use.

It was noted that Krakatoa prepared an environmental and rehabilitation risk assessment for the 2021 AC and diamond drilling programs. The risk assessment identified key risks and proposed controls to manage any potential adverse impacts. Evidence was generally available from observations made on site or through a review of records, to confirm implementation of the controls.

### 3.8.2. Rehabilitation objectives and completion criteria

Mandatory requirement 2 required the licence holder, not later than 14 days prior to the commencement of surface disturbing activities, to provide to the Secretary a copy of clear, specific, achievable and measurable rehabilitation objectives and completion criteria (ROCC). For higher risk prospecting operations, a rehabilitation management plan was required to be prepared and submitted with the rehabilitation objectives and completion criteria.

The exploration activity approval applications lodged by Krakatoa indicated that the total surface disturbance area was less than 5 hectares. The drilling programs did not fall within the definition of a higher risk activity under the code of practice and a rehabilitation management plan was not required to be developed.

ROCCs were submitted for each of the recently completed drilling programs (MAAG0005085, MAAG0005882 and MAAG0010502). It was noted that the ROCCs submitted were generally based on the template provided in Appendix 2 of the code of practice.

### 3.8.3. Rehabilitation program

Mandatory requirement 3 required the licence holder to develop, implement and complete a rehabilitation program (which includes a monitoring program) to rehabilitate disturbed areas to a condition that could support the intended final land use. Mandatory requirement 4 required the licence holder to commence rehabilitation of a site as soon as reasonably practicable following the completion of activities on that site.

The Krakatoa exploration manager advised that the rehabilitation program generally included:

- collection and removal of waste and equipment
- backfill drill hole

- cut off pvc casing below ground and cap hole
- backfill to surface.

Records provided by Krakatoa demonstrated that rehabilitation was generally commenced as soon as testing had been completed, typically within days of drilling. Photographic records were observed to be maintained by Krakatoa, with these photographs supplemented by the completion of rehabilitation checklists at 6 monthly intervals.

The holes inspected during the audit were observed to be rehabilitated. Some minor weed growth was noted on the 2 diamond drill holes. The Krakatoa exploration manager advised that the diamond drill sites would be monitored over time and noted that the landholder had agreed to spray the weeds during spraying as part of the ongoing farm maintenance program.

The aircore holes inspected had revegetated to be indistinguishable from the surrounding ground. Figures 3 and 4 show rehabilitation of a diamond hole and an aircore hole respectively.

Figure 3 Rehabilitation of site SDD002



Figure 4 Rehabilitation of site SAC031



### 3.9. Annual activity reporting

Section 163C of the *Mining Act 1992*, clause 59 of the Mining Regulation 2016 and condition 8 of EL8153 required the licence holder to submit an activity report annually within one calendar month following grant anniversary date. Annual activity reports were required to be prepared in accordance with the *Exploration guideline: Annual activity reporting for prospecting titles*.

During the audit scope period, Krakatoa had submitted annual activity reports comprising:

- annual geological report
- revised work program (up to January 2021)
- environmental rehabilitation and compliance report
- community consultation report.

Generally, reports were found to be in accordance with the MEG and/or Resources Regulator templates and guidance material. MEG reviewed the 2020 and 2021 annual exploration reports and assessed these as satisfactory. The 2020 and 2021 community consultation reports were reviewed by the auditor and were found to be generally in accordance with the guidance material contained in the code of practice.

### 3.10. Core and sample storage

Clause 65 of the Mining Regulation 2016 required the holder of an authority to, so far as is reasonably practicable, collect, retain and preserve:

- all drill cores remaining after sampling
- characteristic samples of the rock or strata encountered in any drill holes.

All core and samples collected were required to be labelled, stored and managed in a manner that preserved the integrity of the core or samples.

The Krakatoa exploration manager advised that core was stored in a farm shed on a property within the exploration licence area. All core was cut and logged. Core photography was available for the 2 diamond holes drilled. The core storage was not inspected during the audit but photographs of the storage area and the core trays were provided for the audit team to review.

### 3.11. Record keeping

Sections 163D and 163E of the *Mining Act 1992* related to the creation and maintenance of records required under the Act, the regulations, or a condition of title. Records must be kept in a legible form for production to any inspector and must be maintained for a period of four years after the expiry or cancellation of the title. Specific requirements for the types of records to be maintained for exploration activities were detailed in the mandatory requirements of the exploration codes of practice as follows:

- mandatory requirement 6 of the rehabilitation code of practice
- mandatory requirement 13.1 of the environmental management code of practice
- mandatory requirement 5 of the community consultation code of practice.

Records reviewed during the audit demonstrated that Krakatoa had generally maintained records as required by the licence conditions and the exploration codes of practice.

Examples of records reviewed included:

- land access agreements
- site induction records
- drill site inspection records
- environmental and rehabilitation risk assessment
- rehabilitation objectives and completion criteria
- pre, during and post drilling photos
- rehabilitation monitoring checklists
- core storage records and photos
- waste management records
- vehicle washdown records
- community consultation register
- community consultation strategy
- annual activity reporting.



## 4. Compliance management

### 4.1. Identifying compliance obligations

Identifying compliance obligations is a critical step in the development of an effective compliance management system. Compliance obligations for an exploration project can include:

- regulatory requirements (for example, the *Mining Act 1992*)
- conditions imposed on the grant, renewal, or transfer of exploration licences
- exploration activity approvals
- exploration codes of practice
- specific commitments made by the organisation (for example, commitments made in the approved exploration activity application).

Once identified, compliance obligations should be reviewed periodically to identify any changes in those obligations (for example, changes in legislation).

The Krakatoa exploration manager generally had a good understanding of the compliance requirements for exploration. Systems and processes for managing compliance requirements, although basic, were developed. Evidence was available to demonstrate that compliance records were maintained.

### 4.2. Subcontractor management

Contractors are often used to undertake specialist tasks, for example, exploration drilling. Whilst the responsibility for compliance or the implementation of environmental controls is often passed to the contractor, the licence holder will retain accountability for compliance with its licence conditions and other compliance obligations. It is important that the licence holder exercises management control of its contractors by specifying contract requirements, providing oversight of contracted works, and evaluating the performance of the contractor during the contracted works.

Krakatoa was using contract drillers to complete the exploration drilling programs. The Krakatoa exploration manager advised that the drillers were provided with a site induction that outlined the work, health and safety, and environmental requirements for the drilling programs. Induction records for the contractors were provided to confirm implementation of the induction process.

Monitoring of the contract drillers was completed by the Krakatoa exploration manager who was on site during the drilling operations.

It was noted that a minor diesel spill was observed at site SDD002 during the audit that was not reported by the driller to the Krakatoa exploration manager. Following the audit, the Krakatoa exploration manager advised he had spoken with the drilling contractor and reiterated the need to report all spills and incidents.

### 4.3. Inspections, monitoring and evaluation

An effective inspection, monitoring and evaluation process is required to:

- monitor the implementation of the risk controls
- evaluate the effectiveness of those controls based on an assessment of inspection and monitoring data
- implement an adaptive management approach if monitoring shows that controls may be ineffective.

The Krakatoa exploration manager developed inspection and monitoring programs for a range of exploration activities. For example, site audit checklists were developed and completed for the diamond drilling program. Drill rig inspection checklists were noted to include environmental issues and the implementation of required controls.

It was noted that the monitoring and inspection process did not necessarily include an assessment of the effectiveness of the controls as implemented. As suggestion for improvement number1, Krakatoa should consider expanding its risk assessment process to include a post drilling review to assess the performance of the control measures and make any recommendations for future drilling programs, where those controls were shown to be not effective in addressing the risk.

### 4.4. Licence holder response to draft audit findings

Krakatoa was provided with a copy of the draft audit report and invited to submit a response to the draft audit findings.

The Krakatoa response provided some minor corrections to drill hole names and photo captions. The response also included a description of actions taken to address the observation of concern. As a result, minor amendments were made to the final audit report.

## 5. Audit conclusions

From the evidence reviewed during the audit, it was concluded that Krakatoa had achieved a high level of compliance with the requirements of the exploration licence, exploration activity approvals and the exploration codes of practice, for the elements reviewed during the audit.

Evidence was available to demonstrate that systems and processes had been developed to identify and manage compliance requirements. It was observed that records were being maintained as required to demonstrate compliance.

No non-compliances were identified during the audit. One observation of concern and one suggestion for improvement were identified as documented in Table 2 and Table 3.

*Table 2 Summary of observations of concern*

OBSERVATION OF CONCERN NO.	DESCRIPTION OF ISSUE	RECOMMENDATION
1	A minor diesel spill was observed at site SDD002. While Krakatoa had systems in place to identify and manage environmental incidents such as spills which were communicated to the driller during induction, the procedure was not implemented by the driller on this occasion.	Krakatoa should ensure that contract drillers are aware of the need to report and clean up any spills.

It was noted that following the audit, the Krakatoa exploration manager advised he had followed up with the driller to reinforce the requirement to report all spills and leaks.

*Table 3 Summary of suggestions for improvement*

SUGGESTIONS FOR IMPROVEMENT	DESCRIPTION OF ISSUE
1	Krakatoa should consider expanding its risk assessment process to include a post-drilling review to assess the performance of the control measures and make any recommendations for future drilling programs, where those controls were shown to be not effective in addressing the risk.